Patient Safety 2015

DRAFT REPORT FOR COMMENT

August 3, 2015

NATIONAL QUALITY FORUM

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Executive Summary

Errors and adverse events associated with healthcare cause hundreds of thousands of preventable deaths each year in the United States. Patient safety-related events occur across healthcare settings from hospitals to clinics to nursing homes, and include healthcare-associated infections (HAIs), medication errors, falls, and other potentially avoidable occurrences. The societal costs are tremendous, including higher use of hospital and other services, higher insurance premiums and taxes, lost work time and wages, and reduced quality of life.

The National Quality Forum's (NQF) portfolio of safety measures spans a variety of topic areas. Many measures in the portfolio are used in public accountability and quality improvement programs. However, significant gaps in measurement remain and unsafe care is still common in the U.S. There is also a need to further expand safety measures beyond the hospital setting and harmonize measures across settings of care.

The Patient Safety Standing Committee oversees the NQF Patient Safety measure portfolio, evaluates newly-submitted and previously-endorsed measures against NQF's measure evaluation criteria, identifies gaps in the portfolio, provides feedback on gaps in measurement, and conducts *ad hoc* reviews. On June 17-18, 2015, the Patient Safety Standing Committee evaluated 4 new measures and 19 maintenance measures. A total of 18 of 23 measures were recommended for endorsement, 2 measures were deferred pending additional information, 2 measures where consensus was not reached and 1 measure was not recommended.

The Patient Safety Standing Committee also conducted *ad hoc* reviews of 3 measures. In two measures, definitions were changed and in one measure substantial changes were made that required a full review of all the NQF criteria. Ultimately, all three *ad hoc* reviews received continued endorsement.

The eighteen measures recommended by the Standing Committee include:

- 0101: Falls: Screening, Risk Assessment, and Plan of Care to Prevent Future Falls (National Committee for Quality Assurance)
- 0141: Patient Fall Rate (American Nurses Association)
- 0202: Falls With Injury (American Nurses Association)
- 0204: Skill Mix Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN, Unlicensed Assistive Personnel [UAP], and Contract (American Nurses Association)
- 0205: Nursing Hours per Patient Day (American Nurses Association)
- 0337: Pressure Ulcer Rate (PDI 2) (Agency for Healthcare Research and Quality)
- 0347: Death Rate in Low-Mortality Diagnosis Related Groups (PSI02) (Agency for Healthcare Research and Quality)

- 0419: Documentation of Current Medications in the Medical Record (Quality Insights of Pennsylvania)
- 0537: Multifactor Fall Risk Assessment Conducted for All Patients Who Can Ambulate (Centers for Medicare & Medicaid Services)
- 0674: Percent of Residents Experience One or More Falls with Major Injury (Long Stay) (Centers for Medicare & Medicaid Services)
- 0679: Percent of High Risk Residents with Pressure Ulcers (Long Stay) (Centers for Medicare & Medicaid Services)
- 0687: Percent of Residents Who Were Physically Restrained (Long Stay) (Centers for Medicare & Medicaid Services)
- 0689: Percent of Residents Who Lose Too Much Weight (Long Stay) (Centers for Medicare & Medicaid Services)
- 2720: National Healthcare Safety Network (NHSN) Antimicrobial Use Measure (Centers for Disease Control)
- 2726: Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections (American Society of Anesthesiologists)
- 2732: INR Monitoring for Individuals on Warfarin after Hospital Discharge (Centers for Medicare and Medicaid Services/Mathematica)
- 0538: Pressure Ulcer Prevention and Care (Centers for Medicare & Medicaid Services)
- 2723: Wrong Patient Retract and Reorder (WP-RAR) (Montefiore Health System)

The Committee did not reach consensus on the following measures:

- 0097: Medication Reconciliation Post-Discharge (National Committee for Quality Assurance)
- 0531: Patient Safety for Selected Indicators (PSI90) (Agency for Healthcare Research and Quality)

The Committee deferred 2 measures for future discussion pending additional information:

- 0352: Failure to Rescue In-Hospital Mortality (risk adjusted) (The Children's Hospital of Philadelphia): Tabled for further discussion
- 0353: Failure to Rescue 30-Day Mortality (risk adjusted) (The Children's Hospital of Philadelphia): Tabled for further discussion

The Committee did not recommend the following measure:

- 2729: Timely Evaluation of High-Risk Individuals in the Emergency Department (Centers for Medicare and Medicaid Services/Mathematica)

The Committee conducted an *ad hoc* review and approved the changed specifications for 3 measures:

- 0138: National Healthcare Safety Network (NHSN) Catheter Associated Urinary Tract Infection (CAUTI) (Centers for Disease Control and Prevention)
- 0139: National Healthcare Safety Network (NHSN) Central Line Associated Bloodstream Infection (CLABSI) (Centers for Disease Control and Prevention)
- 0345: Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15) (Agency for Healthcare Research and Quality)

During the project, several overarching issues and themes were discussed:

- The usefulness of process measures for patient safety even when outcome measures exist
- Measures that are proxies for important patient safety actions are useful, even if imperfect
- Concerns with the use of measures
- The importance of improvement of existing measures and harmonization

Brief summaries of the measures currently under review are included in the body of the report; detailed summaries of the Committee's discussion and ratings of the criteria for each measure are in Appendix A.

Introduction

The Institute of Medicine (IOM) defines patient safety as "freedom from accidental injury due to medical care or medical errors."[1] Patient safety problems cause hundreds of thousands of preventable deaths each year; a recent analysis estimated that up to 440,000 Americans die annually from medical errors in U.S. hospitals,[2] and a 2010 study by the Department of Health and Human Services (HHS) Office of Inspector General (OIG), *Adverse Events in Hospitals: National Incidence Among Medicare Beneficiaries*, estimated that over a quarter of hospitalized Medicare beneficiaries experience an adverse event during their hospital stay.[3] Adverse events can take many forms, including healthcare-associated infections (HAI), medication errors, falls, pressure ulcers, and other potentially avoidable occurrences.

According to the Centers for Disease Control and Prevention (CDC), on any given day, about 1 out of every 20 hospitalized patients has a HAI, costing up to $33 billion annually.[4] The Institute of Medicine report *Preventing Medication Errors* identified error rates across a variety of settings and types, estimating that about 400,000 preventable adverse drug events (ADEs) occur each year in U.S. hospitals, another 800,000 in long-term care, and more than 500,000 among Medicare patients in outpatient settings. The report also noted that costs associated with preventable medication errors have not been well researched but conservatively estimated that the annual cost to hospitals of the 400,000 ADEs, in 2006 dollars, was $3.5 billion.[5]

HAIs and preventable medication errors, while occurring in relatively high numbers, are only two of the many types of patient safety-related events that occur in healthcare settings. The costs of these events are high and are passed on in a number of ways—higher insurance premiums, taxes, lost work time and wages, and lower quality of life, to name a few. Proactively addressing patient safety will protect patients from harm and lead to more affordable, effective, and equitable care.

NQF has a fifteen-year history of focusing on patient safety. Through various projects, NQF has previously endorsed over 100 consensus standards related to patient safety. In addition, NQF endorsed 34 safe practices in the 2010 update of the Safe Practices for Better Healthcare[6], and 29 Serious Reportable Events (SRE)[7]. The Safe Practices, SREs, and NQF-endorsed patient safety measures are important tools for tracking and improving patient safety performance in American healthcare. However, significant gaps remain in the measurement of patient safety. There is also a recognized need to expand available patient safety measures beyond the hospital setting and harmonize safety measures across sites and settings of care.

National Quality Strategy

NQF-endorsed measures for Patient Safety support the National Quality Strategy (NQS). The NQS serves as the overarching framework for guiding and aligning public and private efforts across all levels (local, State, and national) to improve the quality of health care in the U.S.[9] The NQS establishes the "triple aim" of better care, affordable care, and healthy people/communities, focusing on six priorities to achieve those aims: *Safety, Person and Family Centered Care, Communication and Care Coordination, Effective Prevention and Treatment of Illness, Best Practices for Healthy Living,* and *Affordable Care*.[10]

As one of the six priorities of the NQS, safety is clearly a significant and important area of focus for the nation's healthcare system. In pursuit of the NQS goal of improving patient safety, HHS formed the Partnership for Patients initiative in 2011.[8] The Partnership for Patients is focused on a number of specific areas that are closely aligned with topics addressed in NQF's patient safety measure portfolio, including adverse drug events, catheter-associated urinary tract infections (CAUTI), central line-associated bloodstream infections (CLABSI), falls, pressure ulcers, venous thromboembolism (VTE), and other subjects. The HHS Action Plan to Prevent Healthcare-Associated Infections is also a major nationwide safety initiative associated with the NQS goals.[9]

Trends and Performance

While medical error rates remain high, a number of safety initiatives have achieved success in reducing adverse events through programs that involve measurement. For example, the Comprehensive Unit-based Safety Program (CUSP), an AHRQ-funded national CLABSI prevention initiative, has reduced the incidence of CLABSIs by 40 percent in participating institutions.[10] CUSP has taken a similar approach to reducing CAUTI rates.[11] Measurement through the Center for Disease Control and Prevention (CDC)'s National Healthcare Safety Network (NHSN) has shown a 7 percent decrease in CAUTI rates between 2009 and 2010, as well as a 10 percent decrease in surgical site infections (SSI).[12] Other efforts have also shown promising results—another AHRQ-funded initiative, the Reduce MRSA project, has achieved significant reductions in bloodstream infections, including MRSA, for participating hospitals.[13,14]

NQF Portfolio of Performance Measures for Patient Safety

The Patient Safety Standing Committee (Appendix D) oversees NQF's portfolio of Patient Safety measures that includes measures for medication safety, healthcare associated infections, falls, pressure ulcers, mortality, workforce, radiation safety, venous thromboembolism, and other measures related to patient safety (Appendix B). The patient safety portfolio contains 60 measures described in Table 1 below. During this cycle, four new measures were evaluated by the Committee along with 19 NQF-endorsed measures which were evaluated for continued endorsement.

Table 1. NQF Patient Safety Portfolio of Measures

Topic Area	Process	Outcome	Structure	Total
MEDICATION SAFETY	8	1	0	9
HEALTHCARE ASSOCIATED INFECTIONS	4	6	0	10
FALLS	2	5	0	7
VENOUS THROMBOEMBOLISM (VTE)	7	1	0	8
SURGICAL SAFETY	0	2	0	2
PRESSURE ULCERS	1	3	0	4
MORTALITY	0	4	0	4
RADITION SAFETY	0	0	1	1

Topic Area	Process	Outcome	Structure	Total
WORKFORCE	0	1	2	3
OTHER	3	9	0	12
Total	**25**	**32**	**3**	**60**

Because patient safety impacts many clinical areas, a number of measures that could be considered safety-related have been assigned, for various reasons, to other NQF measure portfolios that focus on specific topics. These include Health and Well-Being, Care Coordination, Behavioral Health, Surgery, and Cardiovascular care, among others.

Endorsement of measures by NQF is valued not only because the evaluation process itself is both rigorous and transparent, but also because evaluations are conducted by multi-stakeholder committees comprised of clinicians and other experts, including employers, health plans, public agencies, community coalitions, and patients—many of whom use measures on a daily basis to improve care. Moreover, NQF-endorsed measures undergo routine "maintenance" (i.e., re-evaluation) to ensure that they are still useful and reflect the current science. Importantly, legislative mandate requires that preference be given to NQF-endorsed measures for use in federal public reporting and performance-based payment programs. NQF measures also are used by a variety of stakeholders in the private sector, including hospitals, health plans, and communities.

Over time, and for various reasons, some previously-endorsed safety-related measures have been dropped from the NQF portfolio. In some cases, measure stewards elect to withdraw their measures from consideration; other measures have lost endorsement upon maintenance review. Loss of endorsement can occur for many different reasons, including—but not limited to—a change in evidence without an associated change in specifications, or endorsement of a better measure.

The Patient Safety portfolio of measures is currently organized by topic area. However, the Standing Committee and other stakeholders are encouraged to consider other measurement domains, such as measure type (e.g., process, outcome, patient-reported, etc.), care setting, clinical area, or other relevant factors, for the purposes of identifying or highlighting gaps in safety measurement.

Use of Measures in the Portfolio

Many of the measures in the Patient Safety portfolio are among NQF's most long-standing measures, several of which have been endorsed since 2004. Many are in use in at least one federal program (see Appendix C). For example, several measures are used in the CMS Meaningful Use Program and Medicare Advantage Plans. In addition, several of the measures have been included in the Safety Family of Measures by the NQF-convened Measure Applications Partnership (MAP).

Gaps

While measurement of patient safety continues to increase, several gaps exist where future measure development would be helpful. Specifically, additional measures on medication safety that more directly measure whether a specific action was taken as opposed to attestation, such as medication

reconciliation would be an improvement. eMeasures may be useful to capture more detailed information from electronic health records to capture these actions more accurately.

In addition, while several falls measures exist including the outcome of a fall, and interventions to screen for fall risk and reduce the risk of falls, there are still separate measures for falls in different settings that would benefit from additional harmonization with respect to the definition of a fall.

In addition, the 2014 meeting of the Patient Safety Standing Committee discussed the lack of adequate radiation safety outcome measures, which were not resubmitted for review by measure developers during the 2015 cycle. Radiation safety is an important area of patient safety where new measures could be developed.

Many of the measures in the Patient Safety portfolio also use claims data to assess outcomes such as complications and adverse events. Future measure developers should consider expanding the use of electronic health records and develop eMeasures that can identify errors that occur during regular medical care.

Finally, during this cycle there was only one measure of health information technology (HIT) safety that was submitted and endorsed, the Wrong Patient Retract and Reorder Measure. In the future, as electronic health records continue to develop, concerns over HIT safety may increase as additional technology is developed. Additional measures in this area will be needed to ensure the safety of new technology that directly impacts patient care.

Patient Safety Measure Evaluation

On June 17-18, 2015, the Patient Safety Standing Committee evaluated 4 new measures and 19 measures undergoing maintenance review against NQF's standard evaluation criteria. In addition, the Committee completed three *ad hoc* reviews of endorsed measures.

Table 2. Patient Safety Measure Evaluation Summary

	Maintenance	New	Total
Measures under consideration	19	4	23
Measures recommended for endorsement	15	3	18
Measures recommended for inactive endorsement with reserve status	2	0	2
Measure recommendation deferred	2	0	2
Measures approved for trial use	0	0	0
Measures where consensus is not yet reached	2	0	2
Measures not recommended for endorsement	0	1	1

	Maintenance	New	Total
Measures withdrawn from consideration	0	0	0
Reasons for not recommending	Importance – 0 Scientific Acceptability – 0 Overall – 0 Competing Measure – 0	Importance – 0 Scientific Acceptability – 1 Overall – 0 Competing Measure – 0	1
Ad hoc measures under consideration	3	0	3
Ad hoc measures recommended for continued endorsement	3	0	3

Comments Received Prior to Committee Evaluation

NQF solicits comments on endorsed measures on an ongoing basis through the Quality Positioning System (QPS). In addition, NQF requests comments prior to the evaluation of the measures via an online tool located on the project webpage. For this evaluation cycle, the pre-evaluation comment period was open from May 4th – May 20th, 2015 for the measures under review. A total of 7 pre-evaluation comments were received on 6 of the 23 measures (Appendix G). All comments were provided to the Committee prior to its initial deliberations at the in-person meeting.

Overarching Issues

During the Standing Committee's discussion of the measures, several overarching issues emerged that were factored into the Committee's ratings and recommendations for multiple measures and are not repeated in detail with each individual measure.

The Usefulness of Process Measures for Patient Safety Even When Outcome Measures Exist

The Committee highlighted the importance of process measures for quality improvement despite the presence of good outcome measures. The Committee discussed measurement of the use of specific steps to prevent central line blood stream infections, even though a measure of CLABSIs is broadly used. Specific procedures (e.g., appropriate use of hand hygiene, chlorhexidine skin preparation, full barrier precautions during central venous insertions, etc.) are associated with reduction of CLABSIs. However, outcome measures are still essential to increasing accountability and for quality improvement purposes. The presence of process measures that provide clinical guides to improve outcomes therefore are helpful adjuncts and still are useful measures of quality.

Measures That Are Proxies for Important Patient Safety Actions Are Useful, Even If Imperfect

Many measures provide useful proxies for important patient safety procedures that are difficult to capture directly. For example, the Committee discussed measures of medication reconciliation and it was recognized that measurement of the clinical action of comparing a reconciled list to an actual medication list would be preferred to a measure that merely captures attestation that reconciliation occurred. Measures that capture attestation are still valid and important, but the Committee

recommended that measures should be developed that measure clinical actions based on objective data.

Concerns with the Intended Use of Measures

NQF's current policy is to endorse measures with the intended use in both accountability applications (including public reporting) and performance improvement. The Committee closely reviewed measure 0531, Patient Safety Selected Indicators (PSI90), given that the measure is used in a payment program. The Committee expressed concern over the appropriateness of measures that use claims data to determine payment for providers.

Improvement of Existing Measures and Harmonization

Measure development is a continuous process that requires developers to monitor and improve measures over time. For example, *ad hoc* reviews of measures 0138 (CLASBI) and 0139 (CAUTI) involved several changes that improve each measure's specifications. In addition, harmonization is key in eliminating redundancy, and ensuring that definitions are consistent across measures. For example, there are several measures of falls and pressure ulcers in a variety of settings. Universal definitions of these events are required to ensure consistency in the way data is collected for these measures across settings.

Summary of Measure Evaluation

The following brief summaries of the measure evaluation highlight the major issues considered by the Committee. Details of the Committee's discussion and ratings of the criteria for each measure are in included in Appendix A.

Falls

0101: Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls (National Committee for Quality Assurance): Recommended

Description: This is a clinical process measure that assesses falls prevention in older adults. The measure has three rates: A) Screening for Future Fall Risk: Percentage of patients aged 65 years and older who were screened for future fall risk at least once within 12 months. B) Falls Risk Assessment: Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months. C) Plan of Care for Falls: Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months; **Measure Type**: Process; **Level of Analysis**: Clinician : Group/Practice, Clinician : Individual; **Setting of Care**: Ambulatory Care : Clinician Office/Clinic, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility; **Data Source**: Administrative claims, Electronic Clinical Data, Paper Medical Records

This measure was originally endorsed in 2007 and re-endorsed in 2012. The measure includes three indicators to be reported together across the continuum of care for fall prevention, focusing on people who have fallen more than once or who have had an injurious fall. The measure is based on recommendations from the US Preventive Services Task Force and the American Geriatric Society; the evidence is also supported by the British Geriatric Society and the American Organization of Orthopedic

Surgeons. This provider-level measure is currently used in the PQRS program. Because of this measure's evidence, important, scientific validity, and long-standing use, the Committee agreed it meets the criteria for NQF endorsement.

0202: Falls with injury (American Nurses Association): Recommended

Description: All documented patient falls with an injury level of minor or greater on eligible unit types in a calendar quarter. Reported as Injury falls per 1000 Patient Days. (Total number of injury falls / Patient days) X 1000. Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients; **Measure Type**: Outcome; **Level of Analysis**: Facility, Clinician : Team; **Setting of Care**: Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility; **Data Source**: Electronic Clinical Data, Other, Paper Medical Records

This outcome measure was originally endorsed in 2004 and was most recently re-endorsed in 2012. Falls are the most frequently reported adverse event in inpatient settings, and falls with injuries is one of nine hospital-acquired conditions that have been identified as preventable and targeted in CMS's Partnership for Patients. The Committee agreed this is a very important measure and noted that they hope the measure will be expanded to cover the units currently excluded (pediatric, psychiatric, obstetric, neurology). The Committee rated the reliability and validity highly, including the expanded level of analysis (with this submission, the level of analysis has been expanded to the hospital level; previous endorsement was unit level only). As this measure has been in use for many years, the Committee had no concerns about the feasibility or usability. Overall, the Committee agreed the measure meets the criteria for NQF endorsement.

0141: Patient Fall Rate (American Nurses Association): Recommended

Description: All documented falls, with or without injury, experienced by patients on eligible unit types in a calendar quarter. Reported as Total Falls per 1,000 Patient Days. (Total number of falls / Patient days) X 1000. Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients; **Measure Type**: Outcome; **Level of Analysis**: Facility, Clinician: Team; **Setting of Care**: Hospital/Acute Care Facility, Post Acute/Long Term Care Facility: Inpatient Rehabilitation Facility; **Data Source**: Electronic Clinical Data, Other, Paper Medical Records

This outcome measure was originally endorsed in 2004, re-endorsed in 2012 and was submitted for maintenance of endorsement with an additional level of analysis at the hospital level. Patient fall rate is considered a very important measure of care, as falls are associated with adverse patient outcomes, including injuries that lead to death. This measure has similar specifications and testing as measure 0202; therefore, the Committee did not discuss the measure extensively as their considerations were similar for both measures. The measure has been in use for many years in public reporting programs in several states (e.g. Colorado, Maine, Massachusetts, etc.) as well as the National Database of Nursing Quality Indicators and others. The Committee agreed the measure meets the criteria for NQF endorsement.

0537: Multifactor Fall Risk Assessment Conducted for All Patients Who Can Ambulate (Centers for Medicare & Medicaid Services): Recommended for reserve status

Description: Percentage of home health episodes of care in which patients who can ambulate had a multi-factor fall risk assessment at start/resumption of care.; **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Home Health; **Data Source**: Electronic Clinical Data

This process measure, originally endorsed in 2008 and re-endorsed in 2012, was recommended for reserve status because it is a good measure, but there is consistently high performance and limited room for improvement. Older people receiving home healthcare have relatively high rates of falls, which are associated with injuries, increased use of healthcare resources, and higher mortality. A total of 28-30% of people receiving home health care have a history of two or more falls, or a serious fall in the last 12 month period; however, performance scores indicate that only 7% of home health clients who need emergency care are going for care due to a serious fall. The Committee agreed the scientific acceptability of this measure is high. All data are collected electronically from a mandated data set (Outcome and Assessment Information Set), and it is currently publicly reported on Home Health Compare. The Committee agreed the measure meets the criteria for NQF endorsement. However, agencies tend to perform very well on this measure across the board, as agencies with at least 20 valid episodes are reporting performance rates of 96-98% and the population level performance rate is 95-98%. Therefore, the Committee recommended the measure endorsement under reserve status.

0674: Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (Centers for Medicare & Medicaid Services): Recommended

Description: This measure reports the percentage of residents who have experienced one or more falls with major injury during their episode of nursing home care ending in the target quarter (3-month period). Major injury is defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma. The measure is based on MDS 3.0 item J1900C, which indicates whether any falls that occurred were associated with major injury. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility; **Data Source**: Electronic Clinical Data

This outcome measure was initially endorsed in 2011 and is based on data collected from the CMS Minimum Data Set Version 3.0 (MDS 3.0). The Committee agreed that are several steps that nursing homes can take for long-stay patients to prevent falls, and that there continues to be significant room for improvement for this measure, with approximately 75% of nursing facility residents falling at least once per year. The Committee also agreed that reliability and validity for this measure is adequate, however, the measure was noted to be better at distinguishing between the highest and lowest performing facilities. There were no issues identified with either feasibility or usability, and ultimately the Committee agreed the measure meets the criteria for NQF endorsement.

General Safety Measures

0531 Patient Safety for Selected Indicators (PSI 90) (Agency for Healthcare Research and Quality): Consensus Not Reached

Description: Patient Safety for Selected Indicators (PSI90) is a weighted average of the reliability-adjusted, indirectly standardized, observed-to-expected ratios for the following component indicators: PSI03 Pressure Ulcer Rate, PSI06 Iatrogenic Pneumothorax Rate, PSI07 Central Venous Catheter-Related Blood Stream Infection Rate, PSI08 Postoperative Hip Fracture Rate, PSI09 Postoperative Hemorrhage or Hematoma, PSI10 Physiologic and Metabolic Derangement, PSI11 Postoperative Respiratory Failure, PSI12 Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate, PSI13 Postoperative Sepsis Rate, PSI14 Postoperative Wound Dehiscence Rate, and PSI15 Accidental Puncture or Laceration Rate.; **Measure Type**: Surgery : Cardiac Surgery, Pulmonary/Critical Care : Critical Care, Surgery : General Surgery, Gastrointestinal (GI) : GI Bleeding, Surgery : Perioperative, Pulmonary/Critical Care, Renal, Surgery, Surgery : Thoracic Surgery, Surgery : Vascular Surgery; **Level of Analysis**: PSI90_NQF0531_Evidence_150310.docx; **Setting of Care**: The patient safety composite measure was developed to summarize patient safety across multiple indicators to monitor performance over time or across regions and populations using a methodology that can be applied at the national, regional, State and provi; **Data Source**: Hospital/Acute Care Facility.

This measure was last endorsed in 2009; it is a composite measure of 11 inpatient Patient Safety Indicators. In 2014 the Committee raised concerns about the weighting of the various components of the composite, specificially that some of the more heavily weighted components were less clinically significant (i.e., accidental punctures and lacerations) and/or less preventable. In addition, there were concerns that the events measured are not always reflective of an actual patient safety event that resulted in preventable patient harm. To address the concerns of the 2014 Committee, AHRQ made several updates to the measure to address the Committee's concerns.

1) Additional PSIs were included (from 8 events to 11 events, which expanded the type of complications included this measure),
2) Two of the component PSIs were redesigned; specifically PSI 12 with the removal of isolated calf deep vein thromboses (DVT) which have limited clinical relevance and PSI 15 with a greater focus on accidental punctures and lacerations that occur during abdominal/pelvic surgery and those that result in re-operation within one day which reflect events that are more likely preventable, and
3) The measure was modified to more accurately reflect the impact of the events by better linking the PSIs to important changes in clinical status with "harm weights" that are based on diagnoses that were assigned after the complication.

The Committee agreed that the changes to the measure were highly responsive to the concerns raised during the 2014 Committee discussion. However, new concerns were raised: some post-operative DVT or other events included in the composite may not be preventable; the definition of ICD-9 based central line related blood stream infections may be less precise than other definitions (i.e., NHSN which reports the information differently); and concerns about this measure being included in value-based purchasing programs particularly when it is likely that not all of these events are preventable and that it may distract from efforts to reduce more impactful safety events. In addition, there were concerns that some of the indicators of the measure may not reflect preventable patient safety events because it comes

from ICD-9 data of inpatient complications, which sometimes did not directly reflect that an actual preventable complication occurred in the validation of the components of the composite. During the vote, the Committee agreed that the measure meets the four NQF criteria; however, consensus was not reached on a recommendation for endorsement (58% yes, 42% no). The Committee will re-consider the recommendation for endorsement after reviewing the public comments.

0687: Percent of Residents Who Were Physically Restrained (Long Stay) (Centers for Medicare & Medicaid Services): Recommended

Description: The measure reports the percentage of all long-stay residents who were physically restrained daily during the 7 days prior to the target MDS 3.0 assessment (OBRA, PPS or discharge) during their episode of nursing home care ending in the target quarter (3-month period). Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care. **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility; **Data Source**: Electronic Clinical Data

This process measure was orginally endorsed in 2011. This measure is used to report the percentage residents in nursing homes who are physically restrained during 7 days prior to an asessment and who have had at least 101 cumulative days of nursing facility care. The developers explained that the assessment items within this measure are valid and reliable (e.g., gold standard to nurse agreement ranging from 0.746 to 0.844), and the measure differtiates between facilities (e.g., 66.4% of facilities had a mean score for which 95% confidence intervals do not overlap). This measure demonstrates a low prevelance of the use of restraints, but the Committee agreed it is important to maintain this measure to continue to discourage the practice and close racial and ethnic disparities (e.g., Hispanic residents had the highest rate at 1.6%, followed by Asian residents at 1.5%, white residents at 1.2%, and Black residents at 1.0% daily restraint use). The Committee expressed concerns that public reporting of the measure has been shown to reduce the use of physcial restraints but it may lead to the unintended consequence of increasing the use of chemical restraints. The developers agreed that this is a potential weakness of the measure, citing a recent study that demonstrated higher use of chemical restraints. However, since this trend was identified, CMS has launched several efforts to address the use of chemical restraints and rates have begun to decrease. Ultimately, the Committee agreed the measure meets the criteria for NQF endorsement.

0689: Percent of Residents Who Lose Too Much Weight (Long-Stay) (Centers for Medicare & Medicaid Services): Recommended

Description: This measure reports the percentage of long-stay nursing home residents with a target Minimum Data Set (MDS) assessment (OBRA, PPS, Discharge) that indicates a weight loss of 5% or more of the baseline weight in the last 30 days or 10% or more of the baseline weight in the last 6 months, which is not a result of a physician-prescribed weight-loss regimen. The baseline weight is the resident's weight closest to 30 or 180 days before the date of the target assessment. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility; **Data Source**: Electronic Clinical Data

This outcome measure was last endorsed in 2011. The developer expressed the importance of this topic area, stating that weight loss is the most objective and reproducible marker of nutritional status and quality of care for nursing home residents. Public reporting of this measure is intended to provide nursing homes with the incentive to monitor and maintain weight and nutritional status. However, the Committee raised concerns around the lack of data on disparities and the lack of improvement since the measure's last endorsement. The developer explained that there may actually be no improvement – highlighting the need for continued use of the measure – or it may be related to the fact that the nursing home population is increasingly frail, due to the greater efforts to keep people living at home as long as possible. Two exclusions have been newly added to this measure in response to public comments and recommendations from the National Council for Nutritional Clinical Strategies in Long-Term Care: patients receiving hospice care or with a prognosis of less than six months of life expectancy are now excluded. The Committee also had concerns over the reliability of these exclusions but information provided by the developers reassured them by further explaining their analysis (i.e., stability analysis, confidence interval analysis, signal-to-noise analysis). As data for the measure is collected via the mandatory MDS 3.0, there were no feasibility concerns, and a potential unintended consequence of increased use of feeding tubes has been shown not to be an issue. As the measure is currently in use in Nursing Home Compare, there were no usability concerns. The Committee agreed the measure meets the criteria for NQF endorsement.

2729: Timely Evaluation of High-Risk Individuals in the Emergency Department (Centers for Medicare and Medicaid Services/Mathematica): Not Recommended

Description: Median time from Emergency Department (ED) arrival to qualified provider evaluation for individuals triaged with a severity level of "immediate" or "emergent" on a 5-level triage system; **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record

This is a new process eMeasure. According to the developer, recent reports indicate that mean emergency department wait times are increasing and there are studies that associated Emergency Department crowding and waiting with worse patient outcomes. The purpose of this measure is to assess whether patients who require immediate treatment, specifically those assessed as "immediate" or "emergent" on a five-level triage scale, are seen by a provider within recommended times as defined by the National Center for Health Statistics. FMQAI tested this measure in seven geographically diverse hospitals. The developer provided several sources of evidence and the Committee agreed that ED crowding and long wait times for urgent ED cases is an important problem that must be addressed. Median wait times for ED patients of all severity levels increased from 24.7 to 31.3 minutes between 1998-2000 and 2008-2010. The Committee agreed there is a clear opportunity for improvement. While these data elements are commonly available in several EHR systems (including Epic, Cerner, and McKesson products) and used by each hospital, the Committee had serious concerns about the reliability and validity of the measure. This is because there was poor agreement between the actual time a patient is seen by a qualified provider (captured during field testing) and what was documented in the EHR which is more of a reflection of when the provider signed up to see the patient in the tracking system rather than the time to provider-patient evaluation actually occurred. Overall, the Committee

agreed the measure does not adequately meet the scientific acceptability (reliability) criteria and it was not recommended for NQF endorsement.

Pressure Ulcers

0337: Pressure Ulcer Rate (PDI 2) (Agency for Healthcare Research and Quality): Recommended

Description: Stage III or IV pressure ulcers (secondary diagnosis) per 1,000 discharges among patients ages 17 years and younger. Includes metrics for discharges grouped by risk category. Excludes neonates; stays less than five (5) days; transfers from another facility; obstetric discharges; cases with diseases of the skin, subcutaneous tissue and breast; discharges in which debridement or pedicle graft is the only operating room procedure; discharges with debridement or pedicle graft before or on the same day as the major operating room procedure; and those discharges in which pressure ulcer is the principal diagnosis or secondary diagnosis of Stage III or IV pressure ulcer is present on admission [NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report events per 1,000 hospital discharges.]; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims

This outcome measure focused on children has been endorsed several times and was last re-endorsed in 2012. This is a measure of Stage III or IV pressure ulcers per 1000 discharges in pediatric patients, and it is stratified by high and low-risk patients. When the measure was re-endorsed in 2012, data were not available on Stage III/IV ulcers only; data were available for all pressure ulcers (not split by stage). During this evaluation the developer presented data specifically on Stage III/IV ulcers, which had a considerably lower rate than the "all ulcers" measure. The Committee had concerns about one study, provided by the developer, that concludes only 49% of pressure ulcers in children are not clearly preventable; however, the developer noted that percentage included all ulcers, not only the deeper, more serious ulcers Stage II and IV, which may be more preventable. The Committee also had concerns over the exclusions for this measure, particularly children who were transferred from a skilled nursing facility or intermediate care facility. The developer responded that this was originally designed to ensure that nursing home patients were not included because there was a high likelihood that some of these ulcers were present on admission, however, the developer is in the processes of re-evaluating this measure. There were concerns raised by the Committee that there are many hospitals who had no pediatric pressure ulcers; however, because these events are rare, the Committee agreed that it is still important to measure because they are clinically important and potentially preventable. The Committee agreed the reliability and validity testing is acceptable. As the measure is currently in use, the Committee had no concerns on the feasibility or usability. Ultimately, the Committee agreed the measure meets the criteria for NQF endorsement.

0538: Pressure Ulcer Prevention and Care (Centers for Medicare & Medicaid Services): Recommended for Reserve Status

Description: Pressure Ulcer Risk Assessment Conducted: Percentage of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers at start/resumption of care. Pressure Ulcer Prevention Included in Plan of Care: Percentage of home health episodes of care in which the physician-ordered plan of care included interventions to prevent pressure ulcers. Pressure Ulcer

Prevention Implemented: Percentage of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented; **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Home Health; **Data Source**: Electronic Clinical Data

This long-standing process measure was most recently re-endorsed in 2012. This measure has three rates that each correspond to a part of the care process: assessment, care planning, and intervention implemented to prevent pressure ulcers in patients who are receiving home health care. The Committee had concerns that there is limited room for improvement because performance scores across agencies are above 90% (range of 90-99%). There was also concern that this measure only captures documentation that an assessment was completed, rather than indicating what types of prevention were actually implemented or whether they were appropriate for the patient. However, it was noted that the OASIS form collects data on the specific interventions. The Committee agreed that the Cochrane review, which was provided by the developer, concluded that there was no direct evidence for one of the components of this measure, specifically a structured assessment for pressure ulcers being better than clinical judgment. In addition, while there are clinical practice guidelines that recommend assessment, they are based primarily on expert opinion. However, for the two other components of this measure, plan of care and implementation of the plan of care, there was more definitive evidence provided linking these actions to improved outcomes. The Committee agreed that, while outcomes measures may be better for pressure ulcers rather than process measures such as this, particularly where there is consistently high performance, process measures still serve a purpose. The developer mentioned that they were actively working on an outcome measure in this area. The Committee agreed the measure meets the criteria for NQF endorsement. However, because of the lack of variation across facilities and limited potential for improvement, it was reccomended for reserve status.

0679: Percent of High Risk Residents with Pressure Ulcers (Long Stay) (Centers for Medicare & Medicaid Services): Recommended

Description: This measure reports the percentage of long-stay residents identified as at high risk for pressure ulcers in a nursing facility who have one or more Stage 2-4 or unstageable pressure ulcer(s) reported on a target Minimum Data Set (MDS) assessment (OBRA, PPS, and/or discharge) during their episode during the selected target quarter. High risk populations are defined as those who are comatose, or impaired in bed mobility or transfer, or suffering from malnutrition. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care. A separate measure (NQF#0678, Percent of Residents With Pressure Ulcers That are New or Worsened (Short-Stay)) is to be used for residents whose length of stay is less than or equal to 100 days.; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility; **Data Source**: Electronic Clinical Data

This outcome measure was last endorsed in 2011. The measure uses data from the MDS 3.0 which is required of all Medicare/Medicaid certified nursing facilities. Nationally, facility-level performance has improved over time. The mean score for this measure was 7.4% in quarter 1 of 2011 and the median score was 6.7%. In quarter 3 of 2014, the mean and median were 6.1% and 5.4%, respectively. The

Committee expressed concerns over whether pressure ulcer stages can be reliabily assessed by long-term care nurses and whether stage 2 pressure ulcers should be included in the measure specifications. One member of the Committee recommended that the measure include patients who are wheelchair dependent who are not currenlty included in the measure. Wheelchair dependent patients are at high-risk for pressure ulcters. The developer agreed to take this recommendation under consideration. In addition, the developer stated that because of the IMPACT Act of 2014, they were looking to standardize post-acute care measures across settings. Ultimately, the Committee agreed the measure meets the criteria for NQF endorsement .

Mortality

0347: Death Rate in Low-Mortality Diagnosis Related Groups (PSI02) (Agency for Healthcare Research and Quality): Recommended

Description: In-hospital deaths per 1,000 discharges for low mortality (< 0.5%) Diagnosis Related Groups (DRGs) among patients ages 18 years and older or obstetric patients. Excludes cases with trauma, cases with cancer, cases with an immunocompromised state, and transfers to an acute care facility; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims.

This outcome measure, most recently re-endorsed in 2012 is a measure of in-hospital deaths per 1,000 discharges for low mortality diagnoses with appropriate exclusions. The Committee expressed concerns about the inclusion of chest pain in the measure because it is a symptom and tends to be vague; there are many patients who do not receive a formal diagnosis but end up having serious, lethal conditions that are not formally diagnosed such as non-ST-segment elevation myocardial infarction (NSTEMI) or myocarditis. There were concerns raised that the events flagged by this measure are rare and could be random events, rather than caused by healthcare actions; however, current performance data demonstrate that patients in low-mortality DRGs were 5.2 times more likely than non-targeted cases (9.8% versus 1.7%) to have received “care that departed from professionally recognized standards” after adjusted for patient demographic, geographic, and hospital characteristics. In addition, there were concerns that the measure may be affected by the hospitals’ ability to arrange for home hospice, specifcally hospitals that are able to discharge patients to hospice care prior to in-patient death. This was noted as a limitation of the measure by the developer. The Committee also raised concerns that this measure is less able to discrminate between smaller and larger hospitals. There were no concerns with feasibility or usability. Ultimately, the Committee agreed the measure meets the criteria for NQF endorsement.

0352: Failure to Rescue In-Hospital Mortality (risk adjusted) (The Children's Hospital of Philadelphia): Deferred for further discussion

Description: Percentage of patients who died with a complications in the hospital; **Measure Type**: Outcome; **Level of Analysis**: Population: County or City, Facility, Health Plan, Integrated Delivery System, Population: National, Population: Regional, Population: State; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims.

This is an outcome measure that was most recently re-endorsed in 2012 and that assesses the percentage of patients who die from complications in the hospital. The measure excludes patients over 90 years of age and patients under age 18 years. According to a systematic review of the literature, failure-to-rescue is influenced by hospital characteristics such as nurse-to-patient ratios, number of hospital beds, number of board certified surgeons, etc. The Committee agreed the evidence was sufficient to justify this claim. However, complete information was not provided in the materials submitted for review; the Committee requested the complete current performance data be provided before they make a recommendation on endorsement. There was also concern that performance has not been measured over time and that the measure is not currently in use. The Committee requested that the developers respond to their concerns and deferred the measure for future discussion. The developer will provide the missing information and responses during the comment period, and the Committee will discuss it during the post-comment call.

0353: Failure to Rescue 30-Day Mortality (risk adjusted) (The Children's Hospital of Philadelphia)" Deferred for further discussion

Description: Percentage of patients who died with a complication within 30 days from admission; **Measure Type**: Outcome; **Level of Analysis**: Population: County or City, Facility, Health Plan, Integrated Delivery System, Population: National, Population: Regional, Population: State; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims.

This is a maintenance outcome measure that was most recently re-endorsed in 2012. The developer provided evidence that failure to rescue is affected by numerous hospital characteristics such as nurse-to-patient ratios, the number of hospital beds, anesthesiologists who were board certified, and other measures. The developer noted that the regression model included all the hospital characteristics listed in the testing information provided to the Committee. However, the Committee decided to defer further discussion of the measure until the developer produced the outstanding data as well as addressed several other concerns that could not be directly addressed by the developer at the in-person meeting, such as how the risk adjustment model is calculated, the rationale for excluding patients over 90 years of age and correcting information on co-morbidities. The developer will provide this additional information during the comment period, and the Committee will discuss it during the post-comment call.

Workforce

0204: Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract) (American Nurses Association): Recommended

Description: NSC-12.1 - Percentage of total productive nursing hours worked by RN (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.2 - Percentage of total productive nursing hours worked by LPN/LVN (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.3 - Percentage of total productive nursing hours worked by UAP (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.4 - Percentage of total productive nursing hours worked by contract or agency staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities by hospital unit. Note that the skill mix of the nursing staff (NSC-12.1, NSC-

12.2, and NSC-12.3) represent the proportions of total productive nursing hours by each type of nursing staff (RN, LPN/LVN, and UAP); NSC-12.4 is a separate rate. Measure focus is structure of care quality in acute care hospital units; **Measure Type**: Structure; **Level of Analysis**: Facility, Clinician : Team; **Setting of Care**: Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility; **Data Source**: Management Data, Other.

This structural measure was originally endorsed in 2004 and has been re-endorsed multiple times since then. The developers provided considerable evidence for this measure, specifically that the nurse-to-patient ratio and their licensure levels is correlated with patient outcomes such as reduced risk of death. The Committee agreed that measuring the skill of the workforce is a foundational element to assuring patient safety and that the 15 years of evidence behind the measure is very strong, showing that with a higher skill mix, there are fewer adverse events. Originally this measure was endorsed at the unit level; this submission was expanded to include a hospital level of analysis as well. The Committee had no concerns about the scientific acceptability or feasibility of this measure, due to the evidence linking variation in nursing staffing with adverse events and long-standing use of the measure. The measure is currently used in National Database of Nursing Quality Indicators and the developers mentioned the measure may be included in Hospital Compare in the future. Although some states currently report data on this measure, there are not yet state-level trend data available. Overall, the Committee agreed the measure meets the criteria for NQF endorsement.

0205: Nursing Hours per Patient Day (American Nurses Association): Recommended

Description: NSC-13.1 (RN hours per patient day) – The number of productive hours worked by RNs with direct patient care responsibilities per patient day for each in-patient unit in a calendar month. NSC-13.2 (Total nursing care hours per patient day) – The number of productive hours worked by nursing staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities per patient day for each in-patient unit in a calendar month. Measure focus is structure of care quality in acute care hospital units; **Measure Type**: Structure; **Level of Analysis**: Facility, Clinician : Team; **Setting of Care**: Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility; **Data Source**: Management Data, Other.

This structural measure was originally endorsed in 2004 and has been re-endorsed several times since then. The Committee agreed there is strong, long-standing evidence linking variation in nurse staffing with risk of death and other poor outcomes. The developers provided performance scores reported across percentiles for several variables and demonstrate a significant amount of variation in performance. However, the developer noted that hospitals allocate resources differently within the hospital, which may contribute to observed variation across nursing units. While the hospital level of analysis is new for this submission (prior to endorsement it was only analyzed at the unit level), due to the evidence, its long use and comprehensive testing, the Committee had no concerns around the scientific acceptability, feasibility, or usability of the measure. The Committee agreed the measure meets the criteria for NQF endorsement.

Healthcare Associated Infections

2720: National Healthcare Safety Network (NHSN) Antimicrobial Use Measure (Centers for Disease Control): Recommended

Description: This measure assesses antimicrobial use in hospitals based on medication administration data that hospitals collect electronically at the point of care and report via electronic file submissions to CDC's National Healthcare Safety Network (NHSN). The antimicrobial use data that are in scope for this measure are antibacterial agents administered to adult and pediatric patients in a specified set of ward and intensive care unit locations: medical, medical/surgical, and surgical wards and units. The measure compares antimicrobial use that the hospitals report with antimicrobial use that is predicted on the basis of nationally aggregated data. The measure is comprised of a discrete set of ratios, Standardized Antimicrobial Administration Ratios (SAARs), each of which summarizes observed-to-predicted antibacterial use for one of 16 antibacterial agent-patient care location combinations. The SAARs are designed to serve as high value targets or high level indicators for antimicrobial stewardship programs (ASPs). SAAR values that are outliers are intended to prompt analysis of possible overuse, underuse, or inappropriate use of antimicrobials, subsequent actions aimed at improving the quality of antimicrobial prescribing, and impact evaluations of ASP interventions.; **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital; **Data Source**: Electronic Clinical Data : Electronic Health Record, Management Data

This is a new process measure that creates a ratio of actual reported antimicrobial use with predicted antimicrobial use based on nationally aggregated data. The Committee agreed this is a very important topic and there is a need for measures in this area because of the worldwide problem of antibiotic resistance and antibiotic overuse. Although the testing sample was small, the Committee agreed the testing was adequate as additional testing will be performed once use of the measure is expanded. The Committee noted that the measure only uses electronic data, and raised this as a feasibility concern. The developer explained that it was not feasible to collect the data manually and the Committee decided this was sufficient rationale to begin electronically reporting this measure. The measure is not currently in use and the developers plan to propose the measure for accountability programs after additional field experience. It will be used in the National Healthcare Safety Network for surveillance and quality measurement, and will assist in setting benchmarks for antimicrobial use. Uses may be expanded over time as additional data are collected. Although the measure will require refinement, the Committee determined the measure meets the criteria for NQF endorsement.

2726: Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections (American Society of Anesthesiologists): Recommended

Description: Percentage of patients, regardless of age, who undergo central venous catheter (CVC) insertion for whom CVC was inserted with all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed; **Measure Type**: Process; **Level of Analysis**: Facility, Clinician : Group/Practice, Clinician : Individual, Clinician : Team; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Registry.

This is a new process measure that assesses the percent of patients undergoing CVC insertion where the CVC is inserted with all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques are followed. An earlier version of this measure was submitted during the previous Patient Safety project (Phase 1) but was not recommended because of concerns that there was not enough definitive evidence to link maximal sterile technique with outcomes and that outcome measures exist for this area. The developer attempted to address the concerns raised by the Committee, specifically providing additional evidence and testing. During the Committee discussion, there was concern about how and to whom this measure should be applied. The developer responded that while this measure can be used by any provider who places central lines, it is particularly important for anesthesiologists because they most often place the central line in the operating room or intensive care unit but are not involved in later care when complications can occur. The Committee agreed that although there are already good outcome measures in this area for CLABSI, however, process measures remain critical to reducing infections. While the providers who report have very high rates of performance on this measure (the 10th percentile reports 89%), only 44% of providers are reporting via CMS and NACOR, and according to the developer, data suggests that there is much more room for improvement among developers not reporting. The Committee agreed there is room to expand this measure to other settings, such as emergency departments and intensive care units. Overall, the Committee agreed the developers adequately addressed the concerns raised when the measure was first evaluated and the measure now meets the NQF criteria for endorsement.

Medication Safety

0097: Medication Reconciliation Post-Discharge (National Committee for Quality Assurance): Recommended

Description: The percentage of discharges for patients 18 years of age and older for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record by a prescribing practitioner, clinical pharmacist or registered nurse.; **Measure Type**: Process; **Level of Analysis**: Clinician : Group/Practice, Health Plan, Clinician : Individual, Integrated Delivery System; **Setting of Care**: Ambulatory Care : Clinician Office/Clinic; **Data Source**: Administrative claims, Electronic Clinical Data, Paper Medical Records.

This measure was originally endorsed in 2007 and re-endorsed in 2012. The measure is not based on systematic reviews, but many studies consistently point to the benefits of performing medication reconciliation, particularly for patients who are transferred between care facilities, which increases risk for medication discrepancies in the patient's medication regimen. The Committee discussed whether the measure actually captures medication reconciliation or is just a checkbox. The Committee was concerned that although the measure does not capture the desired level of detail in documenting whether medication reconciliation was actually performed in every case, attestation is an important first step. There was also concern that the use of 30 days from discharge as a threshold may be too lenient. The developer noted that the performance score is 35%, which indicates there is significant room for improvement and recommended delaying modification of this threshold until performance increases. There was also concern over whether observation patients are excluded from the denominator. The developer stated there have been challenges in using claims data to distinguish between patients who are observation or admission but they are looking at ways to overcome this issue. The Committee also

discussed how readmissions could affect the measure. The developer expressed that if a patient is readmitted they are picked up in the measure the next time they are discharged and the measure excludes discharges if it is followed by a readmission/direct transfer to another acute or non-acute facility within the 30-day follow-up period. In terms of the measure validity, several Committee members noted that it may be too easy to attest that an activity was done (reconciliation) when it did not happen, which result less meaningful information collected from the measure. However, the committee expressed confidence in the measures reliability at the measure score level where the denominator rate of agreement was at 96.8% which indicated that two abstractors almost always came to the same conclusion as to patients who met the denominator. There were no concerns regarding the feasibility or usability (e.g., used in CMS Medicare Part C Special Needs Plan Reporting and other programs) of the measure. Ultimately, the Committee agreed the measure meets the criteria for NQF endorsement.

0419: Documentation of Current Medications in the Medical Record (Quality Insights of Pennsylvania): Recommended

Description: Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration; **Measure Type**: Process; **Level of Analysis**: Clinician : Group/Practice, Clinician : Individual; **Setting of Care**: Ambulatory Care : Clinician Office/Clinic; **Data Source**: Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data: Registry.

This process measure was originally endorsed in 2008 and re-endorsed in 2013 and was implemented in the Physicians Quality Reporting System (PQRS), beginning in 2010, and into the Meaningful Use Program beginning in 2013. In 2013, over 100,000 eligible providers who participated in the PQRS program reported this outpatient using either claims or registry data. In this cycle, the developer submitted this as an eMeasure, and as a result there was additional testing provided by the developer to ensure that it met criteria to be an eMeasure. For evidence, the developer provided data from a systematic review of the prevalence of adverse drug events and environmental scan that summarizes the relevant evidence on this measure. Evidence suggests that inaccurate medication lists cause a larger number of fatal adverse drug events. The Committee expressed concerns that this measure does not capture the information most important to improving quality. Reliability testing was done at the performance score level and was rated high (0.97 -1.0). Validity testing was done at the data element and performance score level demonstrated a high level of agreement. In addition, review by the Committee found that this measure performed adequately as an eMeasure. The developers shared that the measure is important to provide accurate data for other measures that are currently in the pipeline that focus on the areas the Committee mentioned as most important to understand for quality improvement. The Committee agreed the measure meets the criteria for NQF endorsement as an eMeasure.

2732: INR Monitoring for Individuals on Warfarin after Hospital Discharge (CMS/Mathematica): Recommended

Description: Percentage of adult inpatient hospital discharges to home for which the individual was on warfarin and discharged with a non-therapeutic International Normalized Ratio (INR) who had an INR test within 14 days of hospital discharge; **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy.

This is a new hybrid e-measure that collects data from both electronic health records and Medicare administrative claims. Warfarin continues to be widely prescribed and it has a narrow therapeutic range, and needs to be monitored closely to lower the risk of complications such as thrombosis or bleeding. The measure focuses on follow-up blood testing for patients that were not within the therapeutic range at the time of discharge from the hospital to their home. The Committee had concerns about how the therapeutic range was selected for the measure because the studies provided as evidence select a variety of ranges. The developers noted that recommended INR range varies based on the patient's condition(s). The developers provided a systematic review and several studies that directly address the importance of close monitoring and explained the INR therapeutic range for this measure was selected by an expert panel as a conservative estimate of the target value, but there is no clear standard. There was also concern over how the 14-day period was chosen. The developers noted this time period was chosen based upon the American College of Chest Physician Guidelines recommendations stating that if a patient had a slightly out-of-range INR they should be retested within 7-15 days. The Committee raised concerns about patients included in the measure who have died or were readmitted within the 14 days of discharge because they did not have their INR checked or were on the wrong dose of warfarin. The developers explained that very few people died; these numbers would not have a significant impact on the measure and they would not be able to determine the reasons patients are readmitted (readmissions comprise 25 percent of exclusions). There were concerns about the reliability of the measure because of the small sample size (100 cases selected from 326) collected from each hospital because of the exclusion criteria. In addition, a portion of the data collected for this eMeasure must be collected through other methods which may create an implementation challenge. The Committee also expressed concern over the potential unintended consequences of encouraging people to use new oral anticoagulants that do not require monitoring which are more expensive and where complications such as bleeding are more difficult to treat. In addition, they cited the difficulty in following up with patients once they have been discharged from the hospital. The developer added that the purpose of the measure was to place the responsibility on the hospital to ensure a proper care transition at discharge, particularly for high-risk patients who are started on anticoagulants that can have a narrow therapeutic range. Despite these concerns, the committee agreed the measure meets the NQF criteria for endorsement.

2723: Wrong-Patient Retract-and-Reorder (WP-RAR) Measure (Montefiore Health System)

Description: A Wrong-Patient Retract-and-Reorder (WP-RAR) event occurs when an order is placed on a patient within an EHR, is retracted within 10 minutes, and then the same clinician places the same order on a different patient within the next 10 minutes. A Wrong-Patient Retract-and-Reorder rate is

calculated by dividing WP-RAR events by total orders examined.; **Measure Type**: Outcome; **Level of Analysis**: Facility, Integrated Delivery System, Clinician : Team; **Setting of Care**: Ambulatory Care : Ambulatory Surgery Center (ASC), Ambulatory Care : Clinician Office/Clinic, Dialysis Facility, Emergency Medical Services/Ambulance, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Pharmacy, Ambulatory Care : Urg; **Data Source**: Electronic Clinical Data, Electronic Clinical Data : eElectronic Health Record, Electronic Clinical Data : Imaging/Diagnostic Study, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy, Electronic Clinical Data : Registry

This is a new outcome measure that captures when a wrong order is made by a provider (e.g., physician, physician assistant, or nurse practitioner), and the provider cancels the order within 10 minutes and then the same provider places the same order on another patient immediately after. The developer presented a study where the developers spoke to 223 providers very shortly after they made a wrong-patient-retract and reorder error. Out of the 223 providers, 170 confirmed it was in fact a wrong-patient error. This measure captures actual errors in real-time within an EHR (however, it is not an eMeasure). The measure collects standard data that every system must keep, and is readily accessible. The measure provides critical information for the process of improving systems to make them safer. The Committee had concerns about how the measure will show improvement. The developer emphasized the time to reorder is a measure of improvement. The limit is set at 10 minutes. The developer noted that the measure will be a good tool to hold hospitals accountable for making their systems safer (e.g., use of photos in the EMR to make it easier to ensure orders are placed on the right patient). The Committee also had concerns that the measure could potentially be punitive against providers. However, it was generally agreed that hospitals and clinicians should be held responsible for the results on this measure. Overall, the Committee agreed this measure meets the criteria for NFQ endorsement.

Ad Hoc Reviews

An ad hoc review is a formal measure evaluation and endorsement reconsideration outside of the scheduled maintenance of endorsement process. An ad hoc review is limited and focused on a specific issue regarding an evaluation criterion and is not the same as a maintenance of endorsement evaluation.

0138: National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure (Centers for Disease Control and Prevention)

Description: Standardized Infection Ratio (SIR) of healthcare-associated, catheter-associated urinary tract infections (UTI) will be calculated among patients in bedded inpatient care locations, except level II or level III neonatal intensive care units (NICU). This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavior health hospitals.; **Measure Type**: Outcome; **Level of Analysis**: Facility, Population : National, Population : Regional, Population : State; **Setting of Care**: Hospice, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility, Other; **Data Source**: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Other, Paper Medical Records.

This outcome measure has been endorsed several times, most recently in 2014. It is used in several public reporting, accreditation, and payment programs, including the Hospital Inpatient Quality Reporting Program, The Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting (PCHQR) Program, IRF Quality Reporting Program, LTCH Quality Reporting Program, Public Health/Disease Surveillance, and the National Healthcare Safety Network. An *ad hoc* review was performed at the developer's request because of material changes made to the measure during the Annual Update of the measure specifications. The NHSN will now require at least 100,000 colony forming units for at least one specific bacterium in a urine culture. It now excludes previously reported cases where the colony forming units were at least a thousand but less than 100,000 and was supported by positive urinalysis. In addition, the measure will now exclude nonbacterial organisms as the sole organism in the urine culture. This change was in response to changes that were made to the NHSN healthcare associated infections (HAIs) criteria that affect the definition of CAUTI and HAIs. These changes make the definition of a CAUTI more specific and reflect colonization that might develop in catheters or could potentially be present on admission. The second change involved the "infection control window period", a seven-day period during which all elements of the criteria must occur together in order for the criteria to be matched and an actual infection identified. Lastly, a repeat infection timeframe is now tied to CAUTIs. There is a 14-day period during which only one UTI can be reported. Previously, there was no time period, which resulted in the same CAUTI potentially being reported twice. The committee had concerns whether there have been any new risk adjustments with the new criteria or validation studies. The developer noted that there have not been any further studies; however, they will be recalculating the standardized incidence ratio once the data with the new specifications are submitted to NHSN in the fall of 2015. The Committee approved these changes and agreed the measure still meets the criteria for NQF endorsement.

0139: National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure (Centers for Disease Control and Prevention)

Description: Standardized Infection Ratio (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) will be calculated among patients in bedded inpatient care locations. This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavioral health hospitals; **Measure Type**: Outcome; **Level of Analysis**: Facility, Population : National, Population : Regional, Population : State; **Setting of Care**: Hospice, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Other; **Data Source**: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Other, Paper Medical Records.

This outcome measure has been endorsed several times, most recently in 2014. It is used in several public reporting, accreditation, and payment programs, including the Hospital Inpatient Quality Reporting Program, The Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting (PCHQR) Program, IRF Quality Reporting Program, LTCH Quality Reporting Program, Public Health/Disease Surveillance, and National Healthcare Safety Network. As with measure 0138, this measure was modified since its last endorsement and the material changes prompted an *ad hoc* review at the developer's request. The CLABSI surveillance criteria now include the exclusion of blood stream

infections (BSI), specifically using the definition of the NHSN "primary BSI." This exclusion criterion specifically identifies and excludes BSIs that are secondary to another infection site, such as a pneumonia or skin infection. In addition, the blood culture must be collected during the site-specific infection secondary BSI attribution period (the period in which the BSI can be classified as secondary). The blood culture also has to satisfy one of the following: a blood culture has to either have one organism that matches an organism found in a site-specific culture (i.e., the catheter tip or another site) OR it has to be an element used to meet the site-specific infection criteria. This requirement restricts the methods by which a BSI can be considered secondary to another source and another site of infection, which would exclude it from being classified as a CLABSI. In addition, the option to use clinical judgment to determine whether a BSI is secondary was removed to reduce variability and improve data consistency. Site facilities now have to collect the blood culture within a 14 to 17 day period and make the determination whether it is a CLABSI or an infection from another secondary site. This change was made to provide a very concrete timeframe during which a BSI could be considered secondary to another infection site. The Committee approved these changes and agreed the measure still meets the criteria for NQF endorsement.

0345: Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15) (Agency for Healthcare Research and Quality)

Description: Accidental punctures or lacerations (secondary diagnosis) during a procedure of the abdomen or pelvis per 1,000 discharges for patients ages 18 years and older that require a second abdominopelvic operation one or more days after the index procedure. Excludes cases with accidental puncture or laceration as a principal diagnosis, cases with accidental puncture or laceration as a secondary diagnosis that is present on admission and obstetric cases.; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims

This outcome measure was most recently re-endorsed in 2012 (as an earlier version that include all accidental punctures and lacerations). An *ad hoc* review was performed at the developer's request because the measure has been modified to focus solely on injuries that occurred during abdominal or pelvic surgery. The Committee re-evaluated all the endorsement criteria because the changes were substantial. The measure had originally been stratifed by the site of the index operation, but now the measure focuses on abdominal and pelvic surgeries. In addition, the numerator was re-specificed to include both the diagnosis of a puncture or laceration and a reoperation on the abdomen and pelvis at least one day after the index operation. By narrowing the scope of the denominator to abdominal-pelvic injuries and those requiring re-operation, the measure developers were able to demonstrate a stronger correlation of these complications with death rates and the need for additional care, improving the validity of this measure. The Committee agreed that this revised measure is improved and more reflective of quality as it was more focused on accidental punctures and lacerations that lead to re-operation and greater morbidity rather than including those with lower clinical significance. Ultimately, the Committee agreed the measure still meets the criteria for NQF endorsement.

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Appendix A: Details of Measure Evaluation

Measures Recommended

Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable; Y=Yes; N=No

0337 Pressure Ulcer Rate (PDI 2)

Submission | **Specifications**

Description: Stage III or IV pressure ulcers (secondary diagnosis) per 1,000 discharges among patients ages 17 years and younger. Includes metrics for discharges grouped by risk category. Excludes neonates; stays less than five (5) days; transfers from another facility; obstetric discharges; cases with diseases of the skin, subcutaneous tissue and breast; discharges in which debridement or pedicle graft is the only operating room procedure; discharges with debridement or pedicle graft before or on the same day as the major operating room procedure; and those discharges in which pressure ulcer is the principal diagnosis or secondary diagnosis of Stage III or IV pressure ulcer is present on admission

[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report events per 1,000 hospital discharges.]

Numerator Statement: Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-9-CM diagnosis codes for pressure ulcer and any secondary ICD-9-CM diagnosis codes for pressure ulcer stage III or IV (or unstageable).

Denominator Statement: Surgical and medical discharges, for patients ages 17 years and younger. Surgical and medical discharges are defined by specific DRG or MS-DRG codes.

Exclusions: Exclude cases:

- with a principal ICD-9-CM diagnosis code for pressure ulcer (see above)
- with any secondary ICD-9-CM diagnosis codes for pressure ulcer (see above) present on admission and any secondary ICD-9-CM diagnosis codes for pressure ulcer stage III or IV (or unstageable, see above) present on admission
- with any-listed ICD-9-CM procedure codes for debridement or pedicle graft before or on the same day as the major operating room procedure (surgical cases only)
- with any-listed ICD-9-CM procedure codes for debridement or pedicle graft as the only major operating room procedure (surgical cases only)
- neonates
- with length of stay of less than five (5) days
- transfer from a hospital (different facility)
- transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- transfer from another health care facility
- MDC 9 (skin, subcutaneous tissue, and breast)
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

See Pediatric Quality Indicators Appendices:

- Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and Outborn
- Appendix J – Admission Codes for Transfers

Appendices are included in supplemental files and online at http://www.qualityindicators.ahrq.gov/Modules/PDI_TechSpec.aspx

Adjustment/Stratification:

0337 Pressure Ulcer Rate (PDI 2)

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **23-Y; 1-N**; 1b. Performance Gap: **2-H; 9-M; 12-L; 1-I;** (consensus not reached)

<u>Rationale</u>:

- Pressure ulcers were agreed to be important patient safety events that are associated with worse outcomes including mortality.
- There were concerns about the preventability of pressure ulcers included this measure, particularly as only 50% of all pressure ulcers (all stages) are considered preventable. However, more serious ulcers (Stage III/IV ulcers) are more preventable, and the developer is in the process of re-evaluating the preventability ulcers included in this measure.
- The developer provided the pressure ulcer rate distribution of hospital performance between 2008 and 2012.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **7-H; 16-M; 1-L; 0-I** 2b. Validity: **3-H; 18-M; 3-L; 0-I**

<u>Rationale</u>:

- The developer reports that data used in testing included information from 36 states that reported present-on-admission data to the 2012 Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID). These data included information on 2,399 hospitals and 241,226 patients.
- Empirical validity testing at the performance measure score level was conducted via a signal-to-noise analysis.
- The developer provided an average reliability estimate for each of 10 hospital groups defined by size (i.e., number of discharges). The average reliability increased as the size of the hospital increased, from 0.957 in the smallest size decile to 0.999 in the largest size decile. The "overall" reliability, calculated as the average reliability across all hospitals, weighted by hospital size, was 0.987.
- The developer assessed the face validity of the measure with a panel of 87 individuals from various professional clinical organizations.
- Developers provided information on the discrimination of the risk-adjustment model (c-statistic=0. 0.817 or 0.7905) as well as its adequacy (by comparing the observed rates to the predicted rates across deciles of risk). Results indicate that the risk-adjustment model can adequately discriminate those with pressure ulcers but the model fit may not be questionable
- There was concern that so many hospitals have zero of these outcomes, however, ultimately the Committee agreed that this measure was able to adequately discriminate quality across hospitals.

3. Feasibility: 13-H; 11-M; 0-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

<u>Rationale</u>:

- Data collection is obtained through administrative claims.
- All data elements are in defined fields in electronic claims. The data are available through AHRQ QI software at no cost to users.
- There were no concerns about feasibility discussed by the Committee.
-

0337 Pressure Ulcer Rate (PDI 2)

4. Use and Usability: 9-H; 12-M; 3-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- The measure is currently used in public reporting at the Upstate University Hospital, Kentucky Norton Healthcare, and HealthGrades.
- There were no concerns about use and usability discussed by the Committee.

5. Related and Competing Measures

- This measure is related to several measures but does not directly compete with any.
- Related measures:
  - 0201: Pressure Ulcer Prevalence – California Nursing Outcome Coalition
  - 0337: Pressure Ulcer Rate (PDI2) - AHRQ
  - 0538: Pressure Ulcer Prevention and Care - CMS
  - 0678: Percent of Residents or Patients with Pressure Ulcers that are New or Worsened (Short Stay) - RTI
  - 0679: Percent of High-Risk Residents with Pressure Ulcers (Long Stay) – CMS

Standing Committee Recommendation for Endorsement: **23-Y; 1-N**

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)

Submission | **Specifications**

Description: In-hospital deaths per 1,000 discharges for low mortality (< 0.5%) Diagnosis Related Groups (DRGs) among patients ages 18 years and older or obstetric patients. Excludes cases with trauma, cases with cancer, cases with an immunocompromised state, and transfers to an acute care facility.

Numerator Statement: Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

Denominator Statement: Discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with a low-mortality (less than 0.5% mortality) MS-DRG code. If an MS-DRG is divided into "without/with (major) complications and comorbidities," both codes without complications/comorbidities and codes with (major) complications/comorbidities must have mortality rates below 0.5% in the reference population to qualify for inclusion.

Exclusions: Exclude cases:

- with any-listed ICD-9-CM diagnosis codes for trauma
- with any-listed ICD-9-CM diagnosis codes for cancer
- with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM procedure codes for immunocompromised state
- transfer to an acute care facility (DISP=2)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **21-Y; 3-N**; 1b. Performance Gap: **9-H; 10-M; 5-L; 0-I;**

<u>Rationale</u>:

- The Committee agreed that one or more healthcare actions were associated with this outcome, and agreed that the occurrence of these events were more than would happen by chance. These events are commonly used to trigger closer review to identify medical errors. In addition, there were concerns that because this measured only inpatient deaths, hospitals with better social work services may be able to transfer patients to hospice, therefore showing lower death rates that do not actually reflect better care or fewer errors.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **9-H; 13-M; 2-L; 0-I** 2b. Validity: **17-H; 15-M; 2-L; 0-I**

<u>Rationale</u>:

- The data used in testing included information on more than 3,300 hospitals and 5 million patients.
- The developer provided an average reliability estimate for each of the 10 hospitals defined by size. The overall reliability, calculated as the average reliability across all hospitals, weighted by hospital size, was .72.
- The developers described the face validity of the measure score, which had a rating of 7 or higher (on a scale of 1-9).
- The developers provided information on the discrimination of the risk-adjustment model (c-statistic=0.8833) as well as its adequacy (by comparing the observed rates to the predicted rates across deciles of risk).
- Based on two-stage implicit review of 8,109 randomly selected records from 104 New York hospitals in 1985-86, Hannan et al. found that patients in low-mortality DRGs (<0.5%) were 5.2 (95% CI, 3.2-8.4) times more likely than non-targeted cases (9.8% versus 1.7%) to have received "care that departed from professionally recognized standards," after adjusting for patient demographic, geographic, and hospital characteristics.
- Based on the data provided, the Committee thought the measure was reliable and valid.

3. Feasibility: 19-H; 4-M; 1-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

<u>Rationale</u>:

- This is a measure that uses administrative data, and the Committee had no concerns about feasibility.

4. Use and Usability: 11-H; 8-M; 5-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

<u>Rationale</u>:

- This measure is currently used in several public reporting programs: ARHQ, National Healthcare Quality &

0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)
National Healthcare Disparities Reports, Arizona Department of Health Services Hospital Compare, HealthGrades, SunCoast, Kentucky Health Care information Center, Kentucky Hospital Association Quality Data, Maine Health Data Organization and several others.
5. Related and Competing Measures • This measure does overlap with some disease-specific inpatient death measures that may be included in low-mortality diagnoses; however, the Committee did not specifically discuss the need to harmonize the measures. In addition, this measure is related to measures 352 and 353, the failure to rescue measures when this occurs in a low-mortality diagnosis.
Standing Committee Recommendation for Endorsement: **23-Y; 1-N**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0419 Documentation of Current Medications in the Medical Record

Submission | **Specifications**

Description: Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration

Numerator Statement: The Numerator statement for the most recent versions of the measure is as follows (for both the 2015 Claims and Registry version and the 2014 e Measure version):

Eligible professional attests to documenting, updating, or reviewing patient´s current medications using all immediate resources available on the date of the encounter. This list must include ALL prescriptions, over-the counters, herbals, vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency, and route

Denominator Statement: 2015 Claims and Registry Denominator statement: All visits for patients aged 18 years and older

2014 e Measure Denominator statement: Equals the Initial Patient Population (IPP)

The IPP is defined as, "All visits occurring during the 12 month reporting period for patients aged 18 years and older before the start of the measurement period"

Exclusions: A patient is not eligible or excluded from the denominator in both Claims and Registry and e Measure specifications if the following reason exists:

Medical Reason: Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

Adjustment/Stratification:

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Ambulatory Care : Clinician Office/Clinic

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **4-H; 12-M; 3-L; 2-I**; 1b. Performance Gap: **9-H; 7-M; 4-L; 1-I;**

Rationale:

- Documenting a list of medications for every patient is important to high quality care. The evidence was considered adequate as medication reconciliation has been tied to ADEs.
- The developers provide a systematic review that demonstrates adverse drug events are a major problem, especially in the outpatient setting.
- There has been an improvement in performance but it has not been linked with a decrease in adverse drug events. However, there have been increases in attestations for this measure over time. There is evidence that this measure has demonstrated an increase in the attestation rate from 75 percent in 2008 to 88 percent in 2013. There is still room for improvement.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **7-H; 11-M; 3-L; 0-I** 2b. Validity: **2-H; 15-M; 4-L; 0-I**

0419 Documentation of Current Medications in the Medical Record
Rationale: • The developers cited a reliability score between 0.97 and 1, which is adequate, and the sample they used was appropriate. • Validity testing was done at both the data element and the score level. • For data element testing, 255 randomly selected encounters from 2014 in 3 physician practices were compared to results of extracted EHR reports. Manually extracted records were considered the gold standard. Unadjusted agreement was 88%, kappa was 0.63 (95% CI 0.51-0.75) for numerator agreement. Landis and Koch (1977) have proposed the following as standards for strength of agreement for the kappa coefficient: [less than or equal to] 0.00=poor, 0.01 -0.20=slight, 0.21 -0.40=fair, 0.41- 0.60=moderate, 0.61-0.80=substantial and 0.81-1.00 =almost perfect (high). • Face validity results at the performance level were not reported and there was no risk adjustment. There was also no power analysis for the reported sample size. • However, there were concerns that the measure does not ensure the medication list is accurate because it measures attestation rather than some gold standard of what medications the patient is actually taking.
3. Feasibility: 3-H; 15-M; 2-L; 0-I *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • There have been four years of reporting. The committee saw no issues with feasibility. • Data collection obtained through administrative claims, electronic clinical data: electronic health record, electronic clinical data: registries and coded by person not obtaining original information. • All data elements are in defined fields in electronic health records.
4. Use and Usability: 3-H; 11-M; 6-L; 0-I *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The measure has been publically reported through the PQRS for the last 4 years. • The measure is currently used in the Meaningful Use program. • The committee had no concerns with usability.
5. Related and Competing Measures • The Committee decided the following three measures were related, but not competing. o 0097 : Medication Reconciliation Post-Discharge o 0553 : Care for Older Adults (COA) – Medication Review o 0554 : Medication Reconciliation Post-Discharge (MRP)
Standing Committee Recommendation for Endorsement: **14-Y; 6-N**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2720 National Healthcare Safety Network (NHSN) Antimicrobial Use Measure

Submission | **Specifications**

Description: This measure assesses antimicrobial use in hospitals based on medication administration data that hospitals collect electronically at the point of care and report via electronic file submissions to CDC's National Healthcare Safety Network (NHSN). The antimicrobial use data that are in scope for this measure are antibacterial agents administered to adult and pediatric patients in a specified set of ward and intensive care unit locations: medical, medical/surgical, and surgical wards and units. The measure compares antimicrobial use that the hospitals report with antimicrobial use that is predicted on the basis of nationally aggregated data. The measure is comprised of a discrete set of ratios, Standardized Antimicrobial Administration Ratios (SAARs), each of which summarizes observed-to-predicted antibacterial use for one of 16 antibacterial agent-patient care location combinations. The SAARs are designed to serve as high value targets or high level indicators for antimicrobial stewardship programs (ASPs). SAAR values that are outliers are intended to prompt analysis of possible overuse, underuse, or inappropriate use of antimicrobials, subsequent actions aimed at improving the quality of antimicrobial prescribing, and impact evaluations of ASP interventions.

Numerator Statement: Days of antimicrobial therapy for antibacterial agents administered to adult and pediatric patients in medical, medical/surgical, and surgical wards and medical, medical/surgical, and surgical intensive care units.

Denominator Statement: Days present for each patient care location—adult and pediatric medical, medical/surgical, and surgical wards and adult and pediatric medical, medical/surgical, and surgical intensive care units—is defined as the number of patients who were present for any portion of each day of a calendar month for each location. The day of admission, discharge, and transfer to and from locations are included in days present. All days present are summed for each location and month, and the aggregate sums for each location-month combination comprise the denominator data for the measure.

Exclusions: Hospital patient care locations other than adult and pediatric medical, medical/surgical, and surgical wards and adult and pediatric medical, medical/surgical, and surgical intensive care units are excluded from this measure.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital

Type of Measure: Process

Data Source: Electronic Clinical Data : Electronic Health Record, Management Data

Measure Steward: Centers for Disease Control and Prevention

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **15-H; 5-M; 1-L; 1-I**; 1b. Performance Gap: **13-H; 7-M; 0-L; 2-I;**

Rationale:

- This is a measure of antimicrobial use as compared to what would be predicted. This measure is seeking to provide data for benchmarking of antimicrobial use at the national level for stewardship programs to use in guiding prescribing practices.
- The Committee agreed that antimicrobial overuse is an important area to measure because of concerns over antimicrobial resistance.
- However, Committee members questioned the appropriateness of this measure for the pediatric population and were assured by the developers that they have a separate SAAR for pediatric patients gathered from pediatric populations. At this time, neonates are not included but are planned to be included in the future.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2720 National Healthcare Safety Network (NHSN) Antimicrobial Use Measure

2a. Reliability: **6-H; 14-M; 1-L; 2-I** 2b. Validity: **7-H; 13-M; 1-L; 2-I**

Rationale:

- There was a concern that patient days could be double-counted if there are transfers. The developer clarified that locations are counted if a patient is administered an antimicrobial in that location.
- The Committee thought the data sample for testing was small; the developer explained that this is a new measure and is grounded in concepts that have existed for many years. They further explained that this is considered a starting place and that they hope to expand the measure to additional areas in the future.
- The measure has some testing done with paper records but is specified for electronic records because the manual data entry proved to be untenable operationally. Electronic records have greatly improved and are collecting this data at the bedside.
- The regression model was tested in real population data, nationally-aggregated, with heterogeneous participation.
- The Committee agreed that this measure has face validity.

3. Feasibility: 5-H; 15-M; 1-L; 2-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- This measure uses electronic data. While not all hospitals are fully e-enabled, the developer stated that there is movement to electronic medication systems or barcode systems. They found the measure not be feasible to collect manually and think this is a good place to begin fully electronic reporting (while noting this is not defined as an eMeasure).

4. Use and Usability: 9-H; 11-M; 1-L; 2-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- The measure is being submitted for public health surveillance for quality measurement and improvement, not for public reporting or payment; the developer wishes to gain greater experience and gather more information before using it for reporting or payment. It is intended for use in the National Healthcare Safety Network.

5. Related and Competing Measures

- This measure is related to several other measures in NQF's portfolio, but none under review in this project.
    - 0268: Perioperative Care: Selection of Prophylactic Antibiotic: First OR Second Generation Cephalosporin (PCPI)
    - 0269: Timing of Prophylactic Antibiotics - Administering Physician (ASA)
    - 0654: Acute Otitis Externa: Systemic Antimicrobial Therapy – Avoidance of Inappropriate Use (PCPI)
    - 0657: Otitis Media with Effusion: Systemic antimicrobials – Avoidance of inappropriate use (PCPI)
    - 1746: Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS) (MGH)
- There are no competing measures.

Standing Committee Recommendation for Endorsement: **20-Y; 2-N**

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0674 Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)

Submission | Specifications

Description: This measure reports the percentage of residents who have experienced one or more falls with major injury during their episode of nursing home care ending in the target quarter (3-month period). Major injury is defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma. The measure is based on MDS 3.0 item J1900C, which indicates whether any falls that occurred were associated with major injury. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care.

Numerator Statement: The numerator is the number of long-stay nursing home residents who experienced one or more falls that resulted in major injury (J1900C = 1 or 2) on one or more look-back scan assessments during their episode ending in the target quarter (assessments may be OBRA, PPS or discharge). In the MDS 3.0, major injury is defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma.

Denominator Statement: The denominator is the total number of long-stay residents in the nursing facility who were assessed during the selected target quarter and who did not meet the exclusion criteria.

Exclusions: Long-stay residents for whom data from J1800 (Any Falls Since Admission/Entry or Reentry or Prior Assessment (OBRA or Scheduled PPS)) or J1900C (Number of Falls Since Admission/Entry or Reentry or Prior Assessment (OBRA or Scheduled PPS)) is missing on all qualifying assessments included in the look-back are excluded from this measure. Residents must be present for more 101 days or more in the facility to be included in long-stay measures.

If the facility sample includes fewer than 30 residents, then the facility is excluded from public reporting because of small sample size.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

Type of Measure: Outcome

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **23-Y; 0-N**; 1b. Performance Gap: **16-H; 7-M; 1-L; 0-I;**

Rationale:

- The developers provided a summary of a systematic review and listed several processes of care associated with major falls with injury, including a multi-factor risk assessment, management programs, exercise interventions etc.
- Approximately three quarters of nursing facility residents fall at least once a year, a rate twice that of their community living counterparts and represent a significant cost burden both for the immediate treatment of the fall-related injury, as well as for the long-term increase in costs.
- To demonstrate a gap in performance, the measure was tested using nationwide data from the Second Quarter of 2014. The average facility score was 3.2 percent (standard deviation 2.6 percent), with a median of 2.7 percent. The rate had decreased in comparison to previous years, but has been stable since the third quarter of 2013.
- The Committee agreed that there was sufficient evidence to demonstrate that falls assessment, plans of care, and interventions are effective in reducing falls in nursing homes.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **8-H; 15-M; 0-L; 0-I** 2b. Validity: **12-H; 11-M; 0-L; 0-I**

0674 Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)
Rationale: • The measure captures variation across facilities. At least 10 percent of facilities had 6.6 percent of residents who had fallen with a major injury, a rate more than twice the facility average. • The measure is not risk adjusted, because by admitting the resident, the facility is assuming responsibility for them. • There were sufficient results for both reliability and validity; therefore the Committee thought that the scientific validity of this measure was adequate.
3. Feasibility: 18-H; 6-M; 0-L; 0-I *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • It is a single question in the MDS; reporting via MDS is something nursing homes are required to do on a regular basis, therefore there were no concerns about feasibility.
4. Use and Usability: 17-H; 7-M; 0-L; 0-I *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The measure is currently used in Nursing Home Compare and is publically reported, so the Committee was not concerned about use and usability of this measure.

5. Related and Competing Measures
• This measure is related to, but not competing with:
  ○ 141: Patient Fall Rate (ANA)
  ○ 202: Falls with Injury (ANA)

Standing Committee Recommendation for Endorsement: **23-Y; 1-N**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0202 Falls with injury

Submission | **Specifications**

Description: All documented patient falls with an injury level of minor or greater on eligible unit types in a calendar quarter. Reported as Injury falls per 1000 Patient Days.

(Total number of injury falls / Patient days) X 1000

Measure focus is safety.

Target population is adult acute care inpatient and adult rehabilitation patients.

Numerator Statement: Total number of patient falls of injury level minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the calendar month X 1000.

Included Populations:

• Falls with Fall Injury Level of "minor" or greater, including assisted and repeat falls with an Injury level of minor or greater

• Patient injury falls occurring while on an eligible reporting unit

Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation in-patient.

Denominator Statement: Denominator Statement: Patient days by Type of Unit during the calendar month.

Included Populations:

•Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types:

•Adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units.

•Patients of any age on an eligible reporting unit are included in the patient day count.

Exclusions: Excluded Populations: Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Team

Setting of Care: Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility

Type of Measure: Outcome

Data Source: Electronic Clinical Data, Other, Paper Medical Records

Measure Steward: American Nurses Association

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **23-Y; 0-N**; 1b. Performance Gap: **14-H; 7-M; 2-L; 0-I**

Rationale:

- Patient falls are the most frequently reported adverse event; falls with injuries is one of nine hospital-acquired conditions that have been identified as preventable and targeted in CMS's Partnership for Patients. Reporting through the Partnership for Patients program showed a reduction in falls and falls with injuries over three years of using this measure.
- Committee members discussed potential unintended consequences, such as increased use of Foley catheters to prevent patients from walking to the bathroom, but there isn't research available on this issue at this time. The developers did note that they are seeing increased fall rates in surgical units over time since surgical patients are now encouraged to get up and walk sooner; they see this as an area that can be targeted for improvement that would not have been identified without this measure.
- There are areas excluded in this measure (pediatric, psychiatric, obstetric, and neurology units) that the Committee is interested in seeing the measure expanded to cover; the developers agreed these are areas of interest.
- The Committee agreed there is very strong evidence for the importance of the measure but that gaps

remain.

- Longitudinal studies based on NDNQI data show improvement in falls over time. In addition, a recent report from AHRQ shows an estimated 17% reduction in hospital acquired conditions.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **15-H; 7-M; 1-L; 0-I** 2b. Validity: **12-H; 9-M; 1-L; 1-I**

<u>Rationale</u>:

- The measure is currently endorsed at the unit level and is being submitted for maintenance to also be endorsed at the hospital level, using a weighting methodology based on the number and types of units in the hospital. It has been tested at both the unit and hospital level. It can also be reported at the system level for large hospital systems, although testing has not been completed at that level.
- Testing was conducted on the performance measure score for the nursing care unit and hospital levels using data from 2013 NDNQI hospitals (n=1552 hospitals, 11,779 nursing units).
- Nursing Care Unit level reliability testing was conducted by 2 methods: Signal-to-Noise analysis and Intra-class Correlation Coefficient (ICC).
- The developers conducted another signal-to-noise analysis using a different methodology than was done for the nursing-unit testing. The average reliability scores from this analysis was 0.75 ± 0.18, with individual hospital reliability values ranging from 0.04-0.98.
- The reliability of the patient injury fall rate measure based on the signal-to-noise analysis ranged from 0.61 (Step-down units) to 0.70 (Surgical).
- The ICC estimates indicate that there is relatively more true variation between nursing units than between hospitals.
- The average squared correlation value across the bootstrap samples, which the developers describe as the proportion of total variance in the hospital score that can be accounted by variance in the true hospital injury fall rate, was 0.68 ± 0.18, with individual squared correlation values ranging from 0.03-0.96 across hospitals.
- The Committee agreed the three types of reliability testing were sufficient (signal to noise, interclass correlation, and a qualitative RN study).
- The developers assessed the association between each hospital's score and true injury fall rates across 5000 bootstrap samples using Spearman's rank correlation. The mean correlation from this analysis was 0.79±.01, with values ranging from 0.76-0.82.
- Both face and construct validity were also rated highly by the Committee.

3. Feasibility: 12-H; 11-M; 0-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

<u>Rationale</u>:

- Data are predominantly collected through electronic adverse event reporting systems and are fairly low burden; therefore, the committee did not have concerns about feasibility.

4. Use and Usability: 13-H; 10-M; 0-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

<u>Rationale</u>:

- This measure is currently in use for public reporting in several states, and was previously used by the Partnership for Patients. Committee members noted that in terms of measures to prevent injury and how to do care, as well as preventing malpractice, this is one of the top areas. Therefore, there were no concerns about usability for this measure.

5. Related and Competing Measures

- This measure is related to and fully harmonized with 141: Patient Fall Rate (ANA).

0202 Falls with injury
• It is also related to 674, Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS). • There are no competing measures.
Standing Committee Recommendation for Endorsement: **23-Y; 0-N**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0141 Patient Fall Rate

Submission | **Specifications**

Description: All documented falls, with or without injury, experienced by patients on eligible unit types in a calendar quarter. Reported as Total Falls per 1,000 Patient Days.

(Total number of falls / Patient days) X 1000

Measure focus is safety.

Target population is adult acute care inpatient and adult rehabilitation patients.

Numerator Statement: Total number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) by hospital unit during the calendar month X 1000.

Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, adult step-down, adult medical, adult surgical, adult medical-surgical combined, critical access, adult rehabilitation in-patient.

Denominator Statement: Denominator Statement: Patient days by hospital unit during the calendar month times 1000.

Included Populations:

•Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types:

•Adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, and adult rehabilitation units.

•Patients of any age on an eligible reporting unit are included in the patient day count.

Exclusions: Excluded Populations: Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Team

Setting of Care: Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility

Type of Measure: Outcome

Data Source: Electronic Clinical Data, Other, Paper Medical Records

Measure Steward: American Nurses Association

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **23-Y; 0-N**; 1b. Performance Gap: **13-H; 8-M; 2-L; 0-I;**

Rationale:

- The evidence demonstrates that both structural and process variables contribute to patient falls. They additionally provide evidence for patient falls with injury as a nationally identified patient safety concern, and that the identification of unit-based falls will provide performance data for developing unit-specific falls prevention programs to reduce the number of patient falls.
- The developers report there is little conclusive evidence on effective fall reduction, with some studies demonstrating reduced falls from falls prevention programs, and others inconclusive.
- In studies resulting with reduced falls, multifactorial falls interventions have been shown to reduce fall rates, and hospital/unit structures, staffing and falls prevention programs variables impacting fall rates.
- The measure is risk stratified based on 6 risk categories.
- There is limited disparities information available and the Committee encouraged the developer to look to expanding that in the future.
- Research shows fall rates vary between 3.3 and 11.5 falls/1000 patient days.
- Therefore, the Committee agreed that one or more healthcare actions were associated with this outcome measure.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

0141 Patient Fall Rate

2a. Reliability: **11-H; 11-M; 1-L; 0-I** 2b. Validity: **13-H; 9-M; 1-L; 0-I**

Rationale:

- Measure testing was conducted on the performance measure score for the nursing care unit and hospital levels using data from 2013 NDNQI hospitals (n=1552 hospitals, 11,779 nursing units).
- Nursing Care Unit level reliability testing was conducted by 2 methods: Signal-to-Noise analysis and Intra-class Correlation Coefficient (ICC).
- The reliability of the total fall rate measure based on the signal-to-noise analysis ranged from 0.64 (critical care units) to 0.81 (rehabilitation units).
- The Intra-class Correlation Coefficient (ICC) estimates indicate that there is relatively more true variation between nursing units than between hospitals.
- The average squared correlation value across the bootstrap samples, which the developers describe as the proportion of total variance in the hospital score that can be accounted by variance in the true hospital injury fall rate, was 0.52 ± 0.18 and ranged from 0.02-0.92 across hospitals.
- The developers assessed the association between each hospital's score and true patient fall rates across 5000 bootstrap samples using Spearman's rank correlation. The mean correlation from this analysis was 0.81 ± 0.01, ranging from 0.78-0.84.
- Fall reporting rates showed results that indicated that high volume unit types accounted for 84.6% of patient days and 87.6% of total falls.
- The Committee did not have any concerns about reliability and validity.

3. Feasibility: 12-H; 10-M; 1-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Data for this measure are obtained through electronic clinical data and paper medical records, based on the medical record system, and often coded by persons not obtaining original information.
- As with measure 202, this measure has been in use for many years and the Committee did not have concerns about feasibility.

4. Use and Usability: 14-H; 8-M; 1-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- This measure is currently used in public reporting programs in several states (i.e., Colorado, Maine, Massachusetts, New York and Washington). It is also used by the American Nurses Credentialing Center Magnet Recognition and Pathways to Excellence Program as well as external bench marking in the National Database of Nursing Quality Indicators and internal quality improvement initiatives within hospitals. Lastly, the measure will potentially be used in payment programs.
- Therefore, the Committee did not have concerns about usability.

5. Related and Competing Measures

- This measure is related to and fully harmonized with 0202: Falls with Injury (ANA).
- There are no competing measures.

Standing Committee Recommendation for Endorsement: **22-Y; 1-N**

6. Public and Member Comment

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7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0679 Percent of High Risk Residents with Pressure Ulcers (Long Stay)

Submission | Specifications

Description: This measure reports the percentage of long-stay residents identified as at high risk for pressure ulcers in a nursing facility who have one or more Stage 2-4 or unstageable pressure ulcer(s) reported on a target Minimum Data Set (MDS) assessment (OBRA, PPS, and/or discharge) during their episode during the selected target quarter. High risk populations are defined as those who are comatose, or impaired in bed mobility or transfer, or suffering from malnutrition.

Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care. A separate measure (NQF#0678, Percent of Residents With Pressure Ulcers That are New or Worsened (Short-Stay)) is to be used for residents whose length of stay is less than or equal to 100 days.

Numerator Statement: The numerator is the number of long-stay residents identified as at high risk for pressure ulcer with a target MDS 3.0 assessment (OBRA quarterly, annual or significant change/correction assessments or PPS 14-, 30-, 60-, or 90-day assessments; or discharge assessment with or without return anticipated) in an episode during the selected target quarter reporting one or more Stage 2-4 or unstageable pressure ulcer(s) at time of assessment. High risk residents are those who are comatose, or impaired in bed mobility or transfer, or suffering from malnutrition. Unstageable pressure ulcers include pressure ulcers that are unstageable due to non-removable dressing/device (M0300E1), slough or eschar (M0300F1), and suspected deep tissue injury (M0300G1).

Denominator Statement: The denominator includes all long-stay nursing home residents who had a target MDS assessment (ORBA, PPS, or discharge) during the selected quarter and were identified as at high risk for pressure ulcer, except those meeting the exclusion criteria.

Exclusions: A resident is excluded from the denominator if the target MDS assessment is an OBRA admission assessment, a PPS 5-day assessment or a PPS readmission/return assessment, or if the resident did not meet the pressure ulcer conditions for the numerator AND any Stage 2, 3, or 4 item is missing (M0300B1 = - OR M0300C1 = - OR M0300D1 = -).

If the facility sample includes fewer than 30 residents, then the facility is excluded from public reporting because of small sample size.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

Type of Measure: Outcome

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **24-Y; 0-N**; 1b. Performance Gap: **13-H; 9-M; 1-L; 1-I;**

Rationale:

- According to the developer, pressure ulcers among long-term nursing facility residents are an important health outcome. Nursing facility residents are at risk for developing new pressure ulcers. In addition, the presence of pressure ulcers can be indicative of the quality of care received by patients in long-term nursing facilities.
- Many pressure ulcers are preventable with the application of evidence-based guidelines. Further, many of the intrinsic and extrinsic risk factors for pressure ulcers are associated with nursing facility care processes.
- The mean performance score was 7.7%, facilities in the 10th percentile scored 2.2%, and the 90th percentile scored 14.3%.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

0679 Percent of High Risk Residents with Pressure Ulcers (Long Stay)

2a. Reliability: **7-H; 14-M; 3-L; 0-I** 2b. Validity: **5-H; 16-M; 3-L; 0-I**

Rationale:

- There was concern over the ability of nurses at the bedside to accurately assess ulcer stages. In addition, there was concern over the signal-to-noise ratio and whether this measure had the ability to discriminate facilities, particularly those with low numbers of patients.
- Reliability testing was done at the level of the data element and the performance measure score. The critical data elements demonstrate a high level of reliability and validity with a kappa score of 0.94 when comparing ratings between pairs of gold standard nurses and between facility and gold standard nurses.
- The developers compared facility rankings for two quarters, half (51.3%) of facilities' percentile ranking remained within the same decile, 21.1% of facilities changed within 1 decile; 13.1%% of facilities' percentile ranking changed by 2 deciles; and 14.6% of facilities' ranking changed by more than 3 deciles.
- The majority (72.5%) of facilities reported changes in their absolute quality scores from quarter to quarter were within one standard deviation.
- The signal- to- noise ratio for this measure was low at 0.08153, indicating that only 8.1% of the variance in scores for this measure in Q1 to Q3 2014 was explained by facility characteristics (including underlying quality of care in each facility). Thus, this measure is not very reliable in separating facility characteristics from the population variance.
- Empirical validity testing was done at the data element level and the performance score level.
- For data element validity, for the pressure ulcer items for Stage 2, 3 and 4 ulcers used in this measure, nurse to gold-standard nurse agreement was perfect, and the range of kappa scores for gold-standard nurse to facility nurse agreement was from 0.945 to 0.993.
- For Performance Measure Score Validity, the developers calculated the correlation between the facility's percentile rank on QM #0678 (Percent of Residents with Pressure Ulcers that are New or Worsened (short stay)) and the facility's percentile rank on NQF #0679 (Percent of High-Risk Residents with Pressure Ulcers (long stay)) in Quarter 3 2014, given that both of these measures are concerned with pressure ulcers. They found a statistically significant ($p < 0.001$) but weak positive correlation ($r = .0853$) between the two measures. They also found significant negative correlations with Nursing Home Compare five-star ratings for health inspections ($r = -0.22712$), staffing ($r = -0.12482$), registered nurse (RN) staffing (-0.13912), and overall rating (-0.22712).
- According to the developer, the results from a RAND study suggests that the MDS items used to calculate this measure have item level validity based on the excellent agreement between gold-standard nurses and facility nurses. Performance measure level validity results are less strong but still support the validity of the measure.

3. Feasibility: 12-H; 12-M; 0-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Data collection through electronic clinical data and coded by someone other than persons obtaining original information.
- All data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS). The developers state that the general data collection method for the MDS 3.0 is currently in operational use and mandatory for all Medicare/Medicaid certified nursing facilities.
- Therefore, the Committee had no concern about feasibility.

4. Use and Usability: 13-H; 10-M; 1-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- This measure is currently used for public reporting in Nursing Home Compare and the Certification and Survey Provider Enhanced Reports for internal and external benchmarking.
- The Committee had no concerns about the usability of the measure.

0679 Percent of High Risk Residents with Pressure Ulcers (Long Stay)
•

5. Related and Competing Measures
• This measure is related to a number of other measures focused on pressure ulcers. These measures include:
  ○ 0201: Pressure Ulcer Prevalence – California Nursing Outcome Coalition
  ○ 0337: Pressure Ulcer Rate (PDI2) - AHRQ
  ○ 0538: Pressure Ulcer Prevention and Care - CMS
  ○ 0678: Percent of Residents or Patients with Pressure Ulcers that are New or Worsened (Short Stay) - RTI

Standing Committee Recommendation for Endorsement: **23-Y; 1-N**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0687 Percent of Residents Who Were Physically Restrained (Long Stay)

Submission | **Specifications**

Description: The measure reports the percentage of all long-stay residents who were physically restrained daily during the 7 days prior to the target MDS 3.0 assessment (OBRA, PPS or discharge) during their episode of nursing home care ending in the target quarter (3-month period). Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care.

Numerator Statement: The numerator is the number of long-stay residents with a selected target Minimum Data Set (MDS) assessment (assessments may be OBRA, PPS or discharge) who have experienced daily physical restraint usage during the 7 days prior to the selected assessment, as indicated by MDS 3.0, Section P, Item P0100, subitems B (P0100B – Trunk restraint used in bed), C (P0100C – Limb restraint used in bed), E (P0100E – Trunk restraint used in chair or out of bed), F (P0100F – Limb restraints used in chair or out of bed), or G (P0100G – Chair prevents rising).

Denominator Statement: The denominator is the total number of all long-stay residents in the nursing facility who have a target OBRA, PPS or discharge MDS 3.0 assessment during the selected quarter and who do not meet the exclusion criteria.

Exclusions: A resident is excluded from the denominator if there is missing data in any of the responses to the relevant questions in the MDS (P0100B= -, or P0100C= -, or P0100E= -, or P0100F= -, or P0100G= -).

If the facility sample includes fewer than 30 residents, then the facility is excluded from public reporting.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

Type of Measure: Process

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **13-H; 9-M; 0-L; 0-I**; 1b. Performance Gap: **6-H; 11-M; 5-L; 0-I**

Rationale:

- The mean facility levels for this measure were 1.2 percent in quarter two of 2014 and the median was zero; only two-thirds of facilities have perfect scores of zero, which means there is still room for improvement. The Committee expressed that all facilities should be score at zero.
- According to the developer, there is also evidence that certification and public reporting of data has led to decreased levels of restraint use. Nursing home accreditation has been associated with lower rates of restraint use.
- The evidence was determined to be adequate, and although there is a narrow performance gap there are wider gaps among racial and ethnic minorities.
- The national facility-level mean and median performance scores have trended steadily downward since the adoption of the MDS 3.0, indicating a general improvement in performance over time.
- Differences in the rate of restraint use by race/ethnicity were found to be statistically significant. Hispanic residents had the highest rate at 1.6%, followed by Asian residents at 1.5%, white residents at 1.2%, and Black residents at 1.0% daily restraint use.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **14-H; 7-M; 0-L; 0-I** 2b. Validity: **9-H; 12-M; 1-L; 0-I**

Rationale:

- There is a facility to nurse rater agreement ranging from 0.746 to 0.844 (considered high).
- The signal-to-noise ratio is 0.84, which is acceptable for the facility level.

0687 Percent of Residents Who Were Physically Restrained (Long Stay)
• The developers presented stratified means that show that 66.4 percent of facilities had scores that were statistically significant from the main at a 95 percent confidence interval. • The limit of restraints to in-bed patients, and limit of restraints to in-chair or out-of-bed both had a high level of agreement. • The gold standard in nursing ratings has a high level of agreement for all items included in the measure.
3. Feasibility: 19-H; 2-M; 0-L; 0-I *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • Data collection is through electronic clinical data and generated or collected by and used by healthcare personnel during the provision of care. • All data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS). The developers state that the general data collection method for the MDS 3.0 is currently in operational use and mandatory for all Medicare/Medicaid certified nursing facilities. • Therefore, the Committee had no concerns about feasibility.
4. Use and Usability: 14-H; 8-M; 0-L; 0-I *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The measure is currently used in the Nursing Home Quality Reporting System for public reporting as well as quality improvement. It is also used for external quality improvement and bench marking in the Certification and Survey Provider Enhanced Reports. • Therefore, the Committee had no concerns about usability.
5. Related and Competing Measures • This measure is related to one measure: o 0640 HBIPS-2 Hours of physical restraint use (The Joint Commission)
Standing Committee Recommendation for Endorsement: **22-Y; 0-N**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0689 Percent of Residents Who Lose Too Much Weight (Long-Stay)

Submission | Specifications

Description: This measure reports the percentage of long-stay nursing home residents with a target Minimum Data Set (MDS) assessment (OBRA, PPS, Discharge) that indicates a weight loss of 5% or more of the baseline weight in the last 30 days or 10% or more of the baseline weight in the last 6 months, which is not a result of a physician-prescribed weight-loss regimen. The baseline weight is the resident's weight closest to 30 or 180 days before the date of the target assessment. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care.

Numerator Statement: The numerator is the number of long-stay residents with a selected target MDS assessment (OBRA, PPS, or discharge) during the selected target quarter indicating that he or she has experienced a weight loss of 5% or more of the baseline weight in the last 30 days or 10% or more of the baseline weight in the last 6 months and the weight loss was not planned or prescribed by a physician (K0300 = [2]). The baseline weight is the resident's weight closest to 30 or 180 days before the date of the target assessment.

Denominator Statement: The denominator is the number of long-stay nursing home residents with a selected target assessment except those with exclusions.

Exclusions: There are four exclusions applied to the denominator: (1) the target assessment is an OBRA admission assessment, a PPS 5-day assessment, or a readmission/return assessment, (2) having a prognosis of life expectancy of less than six months or the six-month prognosis item is missing on the target assessment, (3) receiving hospice care or the hospice care item is missing on the target assessment, or/and (4) the weight loss item is missing on the target assessment.

Nursing facilities with fewer than 30 residents in the denominator are excluded from public reporting because of small sample size.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

Type of Measure: Outcome

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **19-Y; 2-N**; 1b. Performance Gap: **6-H; 12-M; 2-L; 1-I;**

Rationale:

- Weight loss is the most objective and reproducible marker of nutritional status for nursing home residents. Public reporting of this measure is intended to provide nursing homes with the incentive to monitor and maintain weight and nutritional status.
- The Committee agreed this is a very important outcome measure with strong evidence.
- However, they were concerned that there were no data on disparities for this measure, and that there have been no observed improvements since the measure was originally endorsed in 2011. The developers stated that the lack of change in this measure may indicate that nursing homes are not improving in this area, highlighting the need for continued public reporting on it. It was also noted by the Committee that as there is a greater effort to keep people at home as long as possible; the population in nursing homes is increasingly frail, which leads to difficultly in maintaining nutritional status.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **3-H; 14-M; 24-L; 0-I** 2b. Validity: **0-H; 22-M; 0-L; 0-I**

Rationale:

- Two additional exclusions have been applied to this measure since its original endorsement in 2011. Patients receiving hospice care or with a prognosis of life expectancy of less than six months are excluded

since weight loss is expected in elderly patients with end stage disease, and weight maintenance or gain is not consistent with end of life care or patient preferences. These exclusions underwent additional testing that supported the decision to remove them; the exclusions are also supported by public comments and a subject matter expert.

- The developer noted that testing indicates this measure can successfully distinguish facilities in which there is quality concerns related to weight loss from high quality nursing homes where residents' nutritional status is managed very well.
- The measure received high kappa scores for data element reliability but low signal to noise analysis, indicating that perhaps the measure isn't reliable in separating facility characteristics from the noise of the population. The Committee was also concerned that it may be difficult to measure both the numerator and denominator reliably, particularly life expectancy. The developers explained that reliability was tested by pairs of raters at the same time, the repeatability, whereas the concerns were raised on the changeability of weight loss over time. Assessments on this measure are done quarterly but a resident should be monitored for weight loss more often through regular care. The developers did agree it can be difficult to reliably identify patients with less than six months life expectancy, it is very important to identify these individuals to exclude them from the measure and ensure they are not receiving interventions that would go against preferences for end of life care. In addition, the prognosis is based on a physician diagnosis in their medical record.
- For validity, data element and performance score level testing were competed and were deemed acceptable.

3. Feasibility: 15-H; 7-M; 1-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Data for this measure is collected in MDS 3.0 which is mandatory for all Medicare or Medicaid certified nursing homes.
- While there was concern that this measure could have the unintended consequence of increased use of feeding tubes, the quarterly data from Q2 2012 to Q4 2014 showed a slow but steady decrease in feeding tube use in nursing homes.
- Ultimately the Committee had no concerns on feasibility.

4. Use and Usability: 21-H; 1-M; 0-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- The measure is currently publically reported in Nursing Home Compare and the Committee thought continued use should encourage further improvements in the quality of care and the Committee had no concerns about the usability of this measure.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **22-Y; 0-N**

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2723 Wrong-Patient Retract-and-Reorder (WP-RAR) Measure

Submission | **Specifications**

Description: A Wrong-Patient Retract-and-Reorder (WP-RAR) event occurs when an order is placed on a patient within an EHR, is retracted within 10 minutes, and then the same clinician places the same order on a different patient within the next 10 minutes. A Wrong-Patient Retract-and-Reorder rate is calculated by dividing WP-RAR events by total orders examined.

Numerator Statement: Total Wrong-Patient Retract-and-Reorder (RAR) events.

Denominator Statement: All patients.

Exclusions: None

Adjustment/Stratification:

Level of Analysis: Facility, Integrated Delivery System, Clinician : Team

Setting of Care: Ambulatory Care : Ambulatory Surgery Center (ASC), Ambulatory Care : Clinician Office/Clinic, Dialysis Facility, Emergency Medical Services/Ambulance, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Pharmacy, Ambulatory Care : Urg

Type of Measure: Outcome

Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Imaging/Diagnostic Study, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy, Electronic Clinical Data : Registry

Measure Steward: Montefiore Health System

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **21-Y,0-N** 1b. Performance Gap: **H-5**; **M-14**; **L-1**; **I-1;**

Rationale:

- The measure is important because it identifies errors that allow for system and process improvement.
- Within the Montefiore Health System the developer identified 5,246 wrong-patient retract reorder errors.
- It is aligned with on-going initiatives around Health Information Technology safety promulgated by the Office of the National Coordinator.
- Allows for the monitoring of how systems are working and how hospitals are preventing wrong patient orders.
- There are healthcare actions that may reduce the incidence of this outcome, such as better system design (e.g., putting a patient's picture in the electronic health record to ensure that the orders are written on the right patient).

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-13**; **M-6**; **L-0**; **I-0** 2b. Validity: **H-14**; **M-5**; **L-X**; **I-X**

Rationale:

- The measure looks at the actual performance of providers placing orders on the wrong patient, and then retracting the order only to order the same thing on a different patient within a short period of time.
- The developer indicates that reliability testing was done using data from 5 different EHRs. Data included 1) "all orders" from one ED and two hospitals and 2) medication orders from 3 additional hospitals. These data were drawn from ~20 million orders from 2006-2015 across these 5 hospitals.
- The developer conducted validity testing at the data element level using data from two hospitals (n=443 records total). This could potentially satisfy NQF requirements for data element reliability testing.
- The Committee had no concerns about reliability or validity of this measure.

3. Feasibility: H-15; M-4; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

2723 Wrong-Patient Retract-and-Reorder (WP-RAR) Measure
Rationale: • Data collection electronic clinical data (i.e., EHR, Imaging/Diagnostic Study, Laboratory, Pharmacy, • Registry) that is generated or collected by and used by healthcare personnel during the provision of care. • The measure uses data that are routinely and automatically collected, and is readily available. • All data elements are in defined fields in electronic health records (EHRs). • Therefore, the Committee had no concerns about the feasibility of this measure.
4. Use and Usability: H-9; M-11; L-0; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The Committee felt the measure was easy to use and implement across health systems.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-19**; **N-1**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls

Submission | Specifications

Description: This is a clinical process measure that assesses falls prevention in older adults. The measure has three rates:

A) Screening for Future Fall Risk:

Percentage of patients aged 65 years and older who were screened for future fall risk at least once within 12 months

B) Falls Risk Assessment:

Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months

C) Plan of Care for Falls:

Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months

Numerator Statement: This measure has three rates. The numerators for the three rates are as follows:

A) Screening for Future Fall Risk: Patients who were screened for future fall* risk** at last once within 12 months

B) Falls Risk Assessment: Patients who had a risk assessment*** for falls completed within 12 months

C) Plan of Care for Falls: Patients with a plan of care**** for falls documented within 12 months.

*A fall is defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force.

**Risk of future falls is defined as having had had 2 or more falls in the past year or any fall with injury in the past year.

***Risk assessment is comprised of balance/gait assessment AND one or more of the following assessments: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months.

****Plan of care must include consideration of vitamin D supplementation AND balance, strength and gait training.

Denominator Statement: A) Screening for Future Fall Risk: All patients aged 65 years and older seen by an eligible provider in the past year.

B & C) Falls Risk Assessment & Plan of Care for Falls: All patients aged 65 years and older seen by an eligible provider in the past year with a history of falls (history of falls is defined as 2 or more falls in the past year or any fall with injury in the past year).

Exclusions: Patients who have documentation of medical reason(s) for not screening for future fall risk, undergoing a risk-assessment or having a plan of care (e.g., patient is not ambulatory) are excluded from this measure.

Adjustment/Stratification:

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Ambulatory Care : Clinician Office/Clinic, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Paper Medical Records

Measure Steward: National Committee for Quality Assurance

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **13-H; 8-M; 1-L; 0-I**; 1b. Performance Gap: **15-H; 6-M; 2-L; 0-I;**

Rationale:

0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls
• Evidence supported by the USPSTF, the American Geriatric Society, the British Geriatric Society, and the American Organization of Orthopedic Surgeons. However, there is more evidence on plans of care than assessments of falls being links to lower fall rates. • The measure focuses on people who have fallen more than once or who have had an injurious fall. • The reported rates demonstrate room for improvement as well as disparities in performance.
2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u> (2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity) 2a. Reliability: **11-H; 11-M; 1-L; 0-I** 2b. Validity: **8-H; 14-M; 1-L; 0-I** <u>Rationale</u>: • This is a long-endorsed measure that is currently in use and the Committee had no concerns regarding the reliability or validity. After the original endorsement, additional reliability testing was performed in 2013 at the data element level; the measure has undergone face validity testing. • Reliability testing was done at the data element level. The denominators across all three rates had a 100% rate. The numerators had kappa scores above 0.90. • For a systematic assessment of face validity, the AMA-convened Physician Consortium for Performance Improvement (PCPI) oversees the measure development process of clinically relevant physician-level performance measures. The scale was used 1-5, where 1=Strongly Disagree; 2= Disagree; 3=Neither Disagree nor Agree; 4= Agree; 5=Strongly Agree o Mean scores were: ▪ Results for Future Fall Risk:4.30 ▪ Results for Risk Assessment for Falls: 4.39 ▪ Plan of Care for Falls: 4.35
3. Feasibility: 7-H; 13-M; 2-L; 0-I *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* <u>Rationale</u>: • The measure is collected through administrative claims, electronic claims, and paper medical records. Again, as a long-standing measure, there were no concerns regarding feasibility.
4. Use and Usability: 4-H; 17-M; 2-L; 0-I *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* <u>Rationale</u>: • Through its inclusion in PQRS, physicians who chose to report on this measure are paid for reporting, not performance. However, the screening element of the measure is also included in the GPRO program, which requires reporting and is beginning to pay for performance; PQRS is expected to move towards being a penalty program in the near future.
5. Related and Competing Measures • This measure is related to 0035: Fall Risk Management (NCQA) and 0537: Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate (CMS). There are no competing measures.
Standing Committee Recommendation for Endorsement: **22-Y; 1-N**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)

Submission | **Specifications**

Description: NSC-12.1 - Percentage of total productive nursing hours worked by RN (employee and contract) with direct patient care responsibilities by hospital unit.

NSC-12.2 - Percentage of total productive nursing hours worked by LPN/LVN (employee and contract) with direct patient care responsibilities by hospital unit.

NSC-12.3 - Percentage of total productive nursing hours worked by UAP (employee and contract) with direct patient care responsibilities by hospital unit.

NSC-12.4 - Percentage of total productive nursing hours worked by contract or agency staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities by hospital unit.

Note that the skill mix of the nursing staff (NSC-12.1, NSC-12.2, and NSC-12.3) represent the proportions of total productive nursing hours by each type of nursing staff (RN, LPN/LVN, and UAP); NSC-12.4 is a separate rate.

Measure focus is structure of care quality in acute care hospital units.

Numerator Statement: Four separate numerators are as follows:

RN hours – Productive nursing care hours worked by RNs with direct patient care responsibilities for each hospital in-patient unit during the calendar month.

LPN/LVN hours – Productive nursing care hours worked by LPNs/LVNs with direct patient care responsibilities for each hospital in-patient unit during the calendar month.

UAP hours – Productive nursing care hours worked by UAP with direct patient care responsibilities for each hospital in-patient unit during the calendar month.

Contract or agency hours – Productive nursing care hours worked by nursing staff (contract or agency staff) with direct patient care responsibilities for each hospital in-patient unit during the calendar month.

Denominator Statement: Denominator is the total number of productive hours worked by employee or contract nursing staff with direct patient care responsibilities (RN, LPN/LVN, and UAP) for each hospital in-patient unit during the calendar month.

Exclusions: Same as numerator; nursing staff with no direct patient care responsibilities are excluded.

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Team

Setting of Care: Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility

Type of Measure: Structure

Data Source: Management Data, Other

Measure Steward: American Nurses Association

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **11-H; 12-M; 1-L; 0-I**; 1b. Performance Gap: **9-H; 14-M; 1-L; 0-I;**

Rationale:

- The developer presented information stating that nurses have the accountability, responsibility, and authority for bedside care that directly impacts patient outcomes, including mortality, length of stay, failure to rescue, and many hospital acquired conditions. Research demonstrates that the number of nurses and their licensure level are closely linked to outcomes. This measure focuses on the percentage of total productive nursing hours worked by each licensure level, that is, RN, LPN and unlicensed personnel. This structural measure, along with 205, focuses on the ability of nurses to care for patients and provide the necessary surveillance needed for safe and reliable care.
- Committee members noted the robust evidence table linking skill mix and outcomes.
- The Committee agreed that workforce determinants are a foundational element to assure patient safety

0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
and that the 15 years of evidence behind the measure is very strong, showing that the higher the skill mix, the fewer adverse events. • The evidence is strongest for RN/LVN mix and less strong on whether agency mix (contract vs. regular staff) is associated with adverse outcomes for patients; further research is needed in this area.
2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u> (2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity) 2a. Reliability: **10-H; 13-M; 1-L; 0-I** 2b. Validity: **7-H; 17-M; 0-L; 0-I** <u>Rationale</u>: • This measure has been endorsed for many years at the unit level; this maintenance submission also includes a hospital-level analysis. • Reliability testing was done at the performance score level and tested the stability of measures across time. Reliability at the Unit-Level and Hospital-Level were reported for Skill Mix (%RN %) and ranged from 0.82-0.87. (>0.8 is high reliability). • Due to the long-standing use of the measure, the Committee had no concerns regarding the validity and reliability of the measure.
3. Feasibility: 15-H; 9-M; 0-L; 0-I *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* <u>Rationale</u>: • Data for this measure is collected through the nursing-sensitive indicator data systems by each hospital and returned quarterly for review and operational improvement at the hospital level. It is a combination of manual and electronic collection. Hospitals report that it is not a huge burden to collect and most of it is electronic.
4. Use and Usability: 9-H; 13-M; 1-L; 1-I *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* <u>Rationale</u>: • The measure is used in NDNQI. The developers noted that the hospitals participating in this program are not fully representative of the general population (they tend to be larger, academic medical centers or magnet hospitals) but that it is becoming more representative over time. • Long-term the developer hopes to move this measure into Hospital Compare. • The data on this measure has been collected for over 15 years, but has not been shared with the public. However, some states are publically reporting the data but that is new and trends are not yet available.
5. Related and Competing Measures • Related to 205: Nursing Hours per Patient Day (ANA). • No competing measures.
Standing Committee Recommendation for Endorsement: **23-Y; 1-N**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0205 Nursing Hours per Patient Day

Submission | Specifications

Description: NSC-13.1 (RN hours per patient day) – The number of productive hours worked by RNs with direct patient care responsibilities per patient day for each in-patient unit in a calendar month.

NSC-13.2 (Total nursing care hours per patient day) – The number of productive hours worked by nursing staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities per patient day for each in-patient unit in a calendar month.

Measure focus is structure of care quality in acute care hospital units.

Numerator Statement: Total number of productive hours worked by nursing staff with direct patient care responsibilities for each hospital in-patient unit during the calendar month.

Denominator Statement: Denominator is the total number of patient days for each in-patient unit during the calendar month. Patient days must be from the same unit in which nursing care hours are reported.

Exclusions: Patient days from some non-reporting unit types, such as Emergency Department, peri-operative unit, and obstetrics, are excluded.

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Team

Setting of Care: Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility

Type of Measure: Structure

Data Source: Management Data, Other

Measure Steward: American Nurses Association

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **6-H; 17-M; 1-L; 0-I**; 1b. Performance Gap: **12-H; 9-M; 3-L; 0-I;**

Rationale:

- This measure focuses on the number of productive hours worked by RNs with direct patient care responsibilities per day for each inpatient unit in a calendar month.
- As with measure 204, the Committee agreed there is strong, long-standing evidence for this measure and that nurse staff ratios are consistently associated with a reduced risk of death and other poor outcomes. While the evidence cannot be technically rated high, it would be impossible to do a randomized controlled trial on this measure.
- Committee members were concerned about potential unintended consequences: working more than eight hours can cause an increase in errors but keeping staffing levels up means more hours to work; other Committee members felt this was a different issue and did not impact the measure. There was agreement a measure of this type could be useful.
- The developer confirmed that the measure was designed to allow unit type comparison; therefore critical care units are only compared to critical care units and not others that require less staff. The hospital level measure is weighted to account for both unit types and patient volume.
- Committee members noted this is important for benchmarking and not only assists with patient outcomes, but helps with financial management.
- The Committee noted the very large gap in performance – ranging from 5 hours to 15 hours of nursing per patient day –and the developer stated that these numbers are accurate and some hospitals allocate far more resources toward nursing than others. They also noted that hospital types staff differently; pediatric hospitals, for example, tend to overstaff.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **10-H; 14-M; 0-L; 0-I** 2b. Validity: **6-H; 18-M; 0-L; 0-I**

0205 Nursing Hours per Patient Day

Rationale:

- This maintenance measure is adding a new level of analysis, hospital-level.
- In 7,961 units from 1,186 hospitals in the NDNQI database were used. Data from the unit-level and hospital-level are presented. Inter-Class Coefficients at the unit level were 0.73-0.81 and at the hospital-level it was 0.79 for RN hours, for LPN/LVN hours it was 0.89-0.94 at the unit level, and 0.95 at the hospital-level. For UAP hours it was 0.77-0.80 at the unit level, and 0.77 at the hospital level. Total hours were 0.69-0.73 at the unit level and 0.87 at the hospital-level. In general ICC > 0.8 indicates high reliability, > 0.6 is acceptable.
- For Unit-level Validity, the correlation coefficients between the RN care hours measure (adjusted for patient days) and RN reported nurse staffing measures were -0.86 for RN reported maximum number of patients on last shift, and -0.85 for RN reported total number of patients on last shift, indicating strong convergent validity. There were some variations by unit types. When stratified by unit types, the correlation coefficients between RN care hours measure and RN reported maximum number of patients on last shift ranged from -0.46 (critical care units) to -0.74 (step-down units); and the correlation coefficients between RN care hours measure and RN reported total number of patients on last shift ranged from -0.40 (critical care units) to -0.69 (step-down units). These findings indicate moderate to strong correlations between the RN care hour's measure and RN-reported nurse staffing measures.
- For Hospital-level Validity, the correlation coefficients between the RN Hours measure (adjusted for patient days) and RN reported nurse staffing measures were -0.50 for RN reported maximum number of patients on last shift, and -0.48 for RN reported total number of patients on last shift. The correlation coefficients at the hospital-level indicate acceptable validity.

3. Feasibility: 12-H; 11-M; 0-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Data collection obtained through management data other (generated from electronic payroll/accounting report or electronic staffing system).
- All data elements are in defined fields in a combination of electronic sources. The developers outline the nursing care hours data collection process through the NDNQI website with high reporting accuracy.
- The Committee had no concerns around feasibility.

4. Use and Usability: 11-H; 11-M; 2-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale

- The measure has been in use for many years, so the Committee had no concerns around use and usability.

5. Related and Competing Measures

- Related to 204: Skill Mix (ANA)
- No competing measures.

Standing Committee Recommendation for Endorsement: **20-Y; 3-N**

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2726 Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections

Submission | **Specifications**

Description: Percentage of patients, regardless of age, who undergo central venous catheter (CVC) insertion for whom CVC was inserted with all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed

Numerator Statement: Patients for whom CVC was inserted with all elements of maximal sterile barrier technique*, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques** followed

Definitions:

*Maximal sterile barrier technique includes ALL of the following elements:

- cap
- mask
- sterile gown
- sterile gloves
- sterile full body drape

** Sterile ultrasound techniques require sterile gel and sterile probe covers

Denominator Statement: All patients, regardless of age, who undergo CVC insertion

Exclusions: None

The measure includes a denominator exception as indicated by reporting 6030F-1P for the numerator: Documentation of medical reason(s) for not following all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques during CVC insertion (including increased risk of harm to patient if adherence to aseptic technique would cause delay in CVC insertion)

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Group/Practice, Clinician : Individual, Clinician : Team

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Registry

Measure Steward: American Society of Anesthesiologists

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **14-H; 7-M; 0-L; 0-I**; 1b. Performance Gap: **6-H; 8-M; 7-L; 0-I;**

<u>Rationale</u>:

- This measure reviews the use of preventive measures for preventing central line infection at the time the line is placed. The developer stated that this is an important process measure for anesthesiologists, because they are often the ones placing the line in the operating room or ICU but then not involved in later care when the complications are occurring. Since the process and outcome are separated by time and professional service the process measure is fundamental to preventing CVC-related bloodstream infections. The developers clarified that any providers who place central lines are eligible to report.
- There is a very strong connection with outcomes and AHRQ has reported a precipitous drop in CLABSI central line infections since this measure has been in use. 51% of hospital acquired infections occur in the ICU and CVC is likely the largest risk factor.
- The Committee agreed there is strong evidence behind this measure.
- The developer reports that 60-70% of anesthesiologists are reporting the measure when lines are placed so they noted a significant gap in utilization and reporting, but when it is reported it is quite successful, mostly in the low 90 percent but many achieve 100% performance. The Committee was concerned about a potential lack of gap since reported performance is so high but ultimately decided that there is a large gap in reporting that indicates a potential gap in performance.
- The Committee was concerned that some of the data submitted was dated from 2002, but the developers

explained there was no more recent published data.

- Another Committee member questioned the need for both process and outcome measures around this issue. The developer explained that both are needed in this case: the outcome is what is important to patients and facilities, but the process measure looks at what one of the biggest risk factors for an infection to happen, as well as the group of providers who are putting the line in but not managing or taking care of the patient long-term. It was noted this is a clinician-level measure that can also be reported at practice and facility level, while the outcome measure is a hospital-level measure.
- A Committee member raised the concern that this measure should not apply to premature infants, who are likely to have adverse effects from the skin preparation solutions.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **3-H; 13-M; 5-L; 0-I** 2b. Validity: **3-H; 14-M; 4-L; 0-I**

<u>Rationale</u>:

- Reliability was tested at the level of the performance measure score. For NACOR, kappa scores were 0.97 for each year, for the 5% SAF, it was 0.95 for each year.
- Validity testing was conducted through systematic assessment of face validity. After the measure was fully specified, a group of experts was assembled to rate face validity. The experts included 19 physicians (mean rating=4.16 out of 5).
- The Committee agreed the measure had good reliability due to the high kappa scores, and that the face validity of the measure was good.

3. Feasibility: 7-H; 8-M; 6-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

<u>Rationale</u>:

- The measure is collected through administrative claims and electronic data in a clinical registry, using CPT codes.
- One Committee member asked whether this was self-reported or done by an observer ensuring that sterile barrier precautions are being followed. The developer explained that in many institutions it is documented by an observer and that, while it is a check-box measure, they are currently working on an eMeasure that will collect very similar data more objectively.
- Ultimately the Committee had no major concerns on feasibility.

4. Use and Usability: 5-H; 13-M; 4-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

<u>Rationale</u>:

- The measure is currently in use in PQRS, the anesthesia registry, and is being discussed for use as a Joint Commission measure for hospital evaluation.

5. Related and Competing Measures

- This measure is related to 0138: National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure (CDC) and 139: National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure (CDC).
- There are no competing measures.

Standing Committee Recommendation for Endorsement: **18-Y; 3-N**

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

2726 Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections
9. Appeals

2732 INR Monitoring for Individuals on Warfarin after Hospital Discharge

Submission | Specifications

Description: Percentage of adult inpatient hospital discharges to home for which the individual was on warfarin and discharged with a non-therapeutic International Normalized Ratio (INR) who had an INR test within 14 days of hospital discharge

Numerator Statement: Individuals in the denominator who had an INR test within 14 days of discharge

Denominator Statement: Adult inpatient discharges to home for which the individual had active warfarin therapy within 1 day prior to discharge and the last monitored INR within 7 days of discharge was <=1.5 or >= 4

Exclusions: The following inpatient discharges are excluded from the denominator.

The following exclusion is identified from the Medication Administration Record (MAR) within the patient's EHR.

1) Inpatient discharges for which the individuals received dabigatran, rivaroxaban, or apixaban within one day prior to discharge

The following exclusions are identified from Part A and Part B Medicare Administrative Claims.

2) Inpatient discharges for which the individuals are monitoring INR at home

3) Inpatient discharges for which the individuals expired within 14 days post-discharge

4) Inpatient discharges for which the individuals received hospice care within 14 days post-discharge

5) Inpatient discharges for which the individuals had a hospital inpatient admission within 14 days post-discharge

6) Inpatient discharges for which the individuals were admitted to a skilled nursing facility (SNF) within 14 days post-discharge

7) Inpatient discharges for which the end date of the 14-day follow-up period occurs after the end of the measurement period

8) Inpatient discharges for which the individual is not enrolled in Medicare Part A and Part B at the time of discharge and during the 14-day follow-up period post discharge.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **7-H; 11-M; 3-L; 0-I**; 1b. Performance Gap: **7-H; 12-M; 2-L; 0-I;**

Rationale:

- The developers provided several studies and a systematic review that support the measure specifications and its importance to measure.
- There were concerns about the measures therapeutic range based on the evidence provided by the developers as well as the number of days for follow-up.
- The developers show that there is a mean performance rate of about 50 percent, which indicates there is a performance gap.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **3-H; 15-M; 3-L; 0-I** 2b. Validity: **3-H; 12-M; 5-L; 0-I**

Rationale:

- Seven hospitals were assessed and five of them had scores that were at the acceptable threshold for

reliability. Two of the seven that had smaller sample sizes were below the specified threshold.

- Validity testing was done with empirical testing at the data element and performance score measure.
- 97.8% of the data elements found in the medical record correctly matched the EHR data extract received from the participating hospitals. The data element with the lowest criterion validity score (<95%) was the "discharge status" at 91.4%.
- There were concerns about the patients that are readmitted or died during the follow-up period and how that would be a threat to validity. The developers noted that the onus is no longer on the hospital to do a follow-up for the first encounter once they have been readmitted and there are not enough patients who die to have a significant impact on the measure.

3. Feasibility: 8-H; 11-M; 1-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

- Data are drawn from claims and EMR and it seems to be done successfully.

4. Use and Usability: 3-H; 16-M; 1-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- The measure is intended to be used in public reporting programs as well as internal and external quality improvement and bench marking.
- There were concerns about how the measure could be applied in settings outside of those provided by the developers and level for responsibility of the provider for follow-up.

5. Related and Competing Measures

- This measure is related to the following measures:
  - 0555 : INR Monitoring for Individuals on Warfarin
  - 0556 : INR for Individuals Taking Warfarin and Interacting Anti-Infective Medications
  - 0586 : Warfarin_PT/ INR Test
- It is harmonized with 0555 and 0556.
- Measure 0586 is potentially competing, but the Committee did not discuss this issue since 0586 is not currently under review.

Standing Committee Recommendation for Endorsement: **18-Y; 2-N**

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

Measures Recommended With Reserve Status

0537 Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate

Submission | **Specifications**

Description: Percentage of home health episodes of care in which patients who can ambulate had a multi-factor fall risk assessment at start/resumption of care.

Numerator Statement: Number of home health episodes of care in which patients who can ambulate had a multi-factor fall risk assessment at start/resumption of care.

Denominator Statement: Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.

Exclusions: Episodes in which the patient was unable to ambulate at the time of assessment.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Home Health

Type of Measure: Process

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **2-H; 14-M; 2-L; 2-I**; 1b. Performance Gap: **1-H; 5-M; 12-L; 2-I;**

Rationale:

- Older people receiving home healthcare have relatively high rates of falls, which are associated with injuries, increased use of healthcare resources, and increased mortality. 28-30% of people receiving home health care have a history of two or more falls, or a serious fall in the last 12-month period, and 88% of those receiving the assessment are considered at risk for falls. As mentioned in the other falls discussions, the American and British Geriatric Societies clinical practice guidelines recommend use of a multifactorial fall risk assessment, as does a Cochrane Review.
- This process measure encourages use of a systematic multifactorial assessment for falls risk and provides home health agencies and consumers with information that will enable them to monitor the extent to which fall risk assessment is conducted for ambulatory patients. While 82% of home health agency users are over 65, this measure is not limited to that population.
- The Committee noted that the evidence for the measure is based on American Geriatric Society guidelines for ambulatory care people in the community, but this is a home health care measure. However, they agreed the evidence for the measure was there.
- There is limited room for improvement on this measure, because it has a mean performance score of 96-98%.
- The developer explained the measure seems to be very effective, since only 7% of home health patients going for emergency care are going due to a serious fall.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **9-H; 11-M; 2-L; 0-I** 2b. Validity: **6-H; 14-M; 2-L; 0-I**

Rationale:

- Electronic clinical data was used for the reliability testing, with 9,443 agencies testing 3.8 million patients.
- Reliability testing demonstrated that reliability was high (mean beta-binomial scores of 0.94, with a median score of 1.0), ICC of 0.91.
- The Committee agreed there was good reliability for this measure and that there were no issues with validity as it is a yes/no indicator.

0537 Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate
3. Feasibility: 10-H; 11-M; 0-L; 0-I *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • This measure is calculated with data from the mandated OASIS-C data set that home health agencies collect these data as part of comprehensive patient assessments. All data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS).
4. Use and Usability: 3-H; 14-M; 4-L; 0-I *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The Committee thought this was quite useful in terms of home health as emerging evidence shows that falls in the home are different than outside the home. • The measure was first endorsed in 2008 and at that time the assessments were not being done at such a high rate; patients are now being assessed in a systematic way using evidence-based tools. • The measure is in use in Home Health Compare.
5. Related and Competing Measures • The Committee had some question about the burden due to the similar measures collected in other settings, but was assured by the developer that since this assessment is done in the home; it is quite different from other settings such as hospitals or nursing homes. They do plan to harmonize to the extent possible. The Committee did note that information systems are different across settings which can make harmonization challenging but that should be improved in the next few years. • Related measures include 0035: Fall Risk Management and 0101: Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls (NCQA). • No competing measures.
Standing Committee Recommendation for Endorsement: 14-Y; 7-N
Reserve Status: 21-Y; 1-N **Because of the limited room for improvement, the Committee recommended this measure for reserve status after it met all the other criteria and was recommended for endorsement.**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0538 Pressure Ulcer Prevention and Care

Submission | **Specifications**

Description: Pressure Ulcer Risk Assessment Conducted: Percentage of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers at start/resumption of care.

Pressure Ulcer Prevention Included in Plan of Care: Percentage of home health episodes of care in which the physician-ordered plan of care included interventions to prevent pressure ulcers.

Pressure Ulcer Prevention Implemented: Percentage of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.

Numerator Statement: Pressure Ulcer Risk Assessment Conducted: Number of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers either via an evaluation of clinical factors or using a standardized tool, at start/resumption of care.

Pressure Ulcer Prevention Included in Plan of Care: Number of home health episodes of care in which the physician-ordered plan of care included interventions to prevent pressure ulcers.

Pressure Ulcer Prevention Implemented: Number of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.

Denominator Statement: Pressure Ulcer Risk Assessment Conducted: Number of home health episodes of care ending during the reporting period, other than those covered by generic exclusions.

Pressure Ulcer Prevention Included in Plan of Care: Number of home health episodes of care ending during the reporting period, other than those covered by generic exclusions.

Pressure Ulcer Prevention Implemented: Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.

Exclusions: Pressure Ulcer Risk Assessment Conducted: No measure-specific exclusions.

Pressure Ulcer Prevention Included in Plan of Care: Episodes in which the patient is not assessed to be at risk for pressure ulcers.

Pressure Ulcer Prevention Implemented: Number of home health episodes in which the patient was not assessed to be at risk for pressure ulcers, or the home health episode ended in transfer to an inpatient facility or death.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Home Health

Type of Measure: Process

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **H-3**; **M-14**; **L-1**; **I-2; IE-0**; 1b. Performance Gap: **H-0**; **M-2**; **L-20**; **I-1**.

Rationale:

- The measure is based on national (e.g., National Pressure Ulcer Advisory Panel) and international standards for processes of care that identify those persons at highest risk and recommend risk preventive and treatment strategies.
- Body of evidence for risk assessment: Two RCTs; Treatment: 174 studies including RCTs and observational studies
- There were concerns that some of the rates in this measure, specifically the assessment piece, had no evidence outside of clinical opinion. In addition, there were concerns that this measure was topped out in the 90% range, so the committee decided to move the measure to reserve status.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

0538 Pressure Ulcer Prevention and Care
2a. Reliability: **H-6**; **M-16**; **L-0**; **I-0** 2b. Validity: **H-5**; **M-11**; **L-0**; **I-3** Rationale: • Reliability testing was conducted at the data element level and the performance measure score. • Using the beta-binomial model, the measure reliability was high, with the mean and median reliability scores of 0.94 and 0.99 respectively, are above the range considered acceptable (0.70 – 0.80) for drawing inferences about home health agencies. • The ICC coefficient is 0.94 for agencies with at least 40 valid episodes, suggesting acceptable test-retest reliability. • Empirical validity testing was done at the level of the performance measure score.
3. Feasibility: H-10; M-9; L-0; I-1 *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • The Committee did not have specific concerns about the feasibility of this measure. • Data are collected through electronic clinical data and generated or collected by and used by healthcare personnel during the provision of care. • All data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS).
4. Use and Usability: H-8; M-8; L-2; I-1 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • This measure is currently in use in Home Health Compare and the CMS Home Health Quality Initiative. • Therefore, the Committee had no concerns about usability.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-18**; **N-2** **Standing Committee Recommendation for Reserve Status: Y-22; N-2**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

Measures Where Consensus Is Not Yet Reached

0097 Medication Reconciliation Post-Discharge

Submission | **Specifications**

Description: The percentage of discharges for patients 18 years of age and older for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record by a prescribing practitioner, clinical pharmacist or registered nurse.

Numerator Statement: Medication reconciliation conducted by a prescribing practitioner, clinical pharmacist or registered nurse on or within 30 days of discharge. Medication reconciliation is defined as a type of review in which the discharge medications are reconciled with the most recent medication list in the outpatient medical record.

Denominator Statement: All discharges from an in-patient setting for patients who are 18 years and older.

Exclusions: The following exclusions are applicable to the Health Plan Level measure.

- Exclude both the initial discharge and the readmission/direct transfer discharge if the readmission/direct transfer discharge occurs after December 1 of the measurement year.

- If the discharge is followed by a readmission or direct transfer to an acute or non-acute facility within the 30-day follow-up period, count only the readmission discharge or the discharge from the facility to which the patient was transferred.

Adjustment/Stratification:

Level of Analysis: Clinician : Group/Practice, Health Plan, Clinician : Individual, Integrated Delivery System

Setting of Care: Ambulatory Care : Clinician Office/Clinic

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Paper Medical Records

Measure Steward: National Committee for Quality Assurance

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **8-H; 12-M; 2-L; 0-I**; 1b. Performance Gap: **8-H; 8-M; 5-L; 1-I;**

Rationale:

- There is no systematic review but all the studies cited consistently point towards the benefits of performing medication reconciliation, particularly for patients who are at high risk when transferring between facilities.
- The cited studies have all primarily linked medication reconciliation to a reduction in medication errors.
- There is a clear performance gap, especially with special needs plan beneficiaries.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **0-H; 15-M; 6-L; 1-I** 2b. Validity: **0-H; 13-M; 9-L; 0-I**

Rationale:

- The numerator rate of agreement was high (96.8 percent) and the numerator had a high kappa score of 0.97.
- A systematic assessment of face validity was done and the mean rating was 4.0, with 73.91 percent of respondents either agreeing or strongly agreeing that the measure can accurately distinguish good and poor quality.

3. Feasibility: 7-H; 13-M; 2-L; 0-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

0097 Medication Reconciliation Post-Discharge

- The data are captured from electronic clinical data that is being used for the CMS Meaningful Use Program and at the health plan level it is obtained through administrative claims and electronic clinical claims.

4. Use and Usability: 7 -H; 10-M; 4-L; 0-I

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- The measure is already in use in the NCMS Medical Part C special needs plans and now extended to all of Part C Medicare Advantage plans.

5. Related and Competing Measures

- This measure is related to a number of measures in the NQF portfolio:
  - 0419: Documentation of Current Medications in the Medical Record
  - 0553: Care for Older Adults (COA) – Medication Review
  - 0646: Reconciled Medication List Received by Discharged Patients (Discharges from an Inpatient Facility to Home/Self Care or Any Other Site of Care)
  - 2456: Medication Reconciliation: Number of Unintentional Medication Discrepancies per Patient

Standing Committee Recommendation for Endorsement: **12-Y; 8-N**

- With 60% approval, this is considered a consensus not reached measure. It will move forward to comment and the Committee will discuss and revote after the comment period.
- Although the Committee voted relatively highly on each criterion, there was doubt about whether the measure actuality measures what it purports to measure. The Committee stated there is the likelihood that reconciliation is documented but not actually done.

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism

Submission | **Specifications**

Description: N/A

Numerator Statement: Populations at Risk

Denominator Statement: PSI03

See Patient Safety Indicators Appendices:

Appendix A – Operating Room Procedure Codes

Appendix J – Admission Codes for Transfers

See attached excel document for

ICD-9-CM Hemiplegia, paraplegia, or quadriplegia diagnosis codes

ICD-9-CM Spina bifida or anoxic brain damage diagnosis codes

ICD-9-CM Debridement or pedicle graft procedure codes

PSI06

See attached excel document for

ICD-9-CM Chest trauma diagnosis codes

0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism
ICD-9-CM Pleural effusion diagnosis codes
ICD-9-CM Thoracic surgery procedure codes
ICD-9-CM Lung or pleural biopsy procedure codes
ICD-9-CM Diaphragmatic repair procedure codes
ICD-9-CM Cardiac procedure codes
PSI07
See Patient Safety Indicators Appendices:
Appendix H – Cancer Diagnosis Codes
Appendix I – Immunocompromised State Diagnosis and Procedure Codes
PSI08
See Patient Safety Indicators Appendices:
Appendix G – Trauma Diagnosis Codes
Appendix K – Self-Inflicted Injury Diagnosis Codes
See attached excel document for
ICD-9-CM Hip fracture repair procedure codes
ICD-9-CM Seizure diagnosis codes
ICD-9-CM Syncope diagnosis codes
ICD-9-CM Stroke and occlusion of arteries diagnosis codes
ICD-9-CM Coma diagnosis codes
ICD-9-CM Cardiac arrest diagnosis code
ICD-9-CM Poisoning diagnosis codes
ICD-9-CM Delirium and other psychoses diagnosis codes
ICD-9-CM Anoxic brain injury diagnosis code
ICD-9-CM Metastatic cancer diagnosis codes
ICD-9-CM Lymphoid malignancy diagnosis codes
ICD-9-CM Bone malignancy diagnosis codes
PSI09
ICD-9-CM Coagulation disorder diagnosis codes:
2860 CONG FACTOR VIII DIORD
2861 CONG FACTOR IX DISORDER
2862 CONG FACTOR XI DISORDER
2863 CONG DEF CLOT FACTOR NEC
2864 VON WILLEBRANDS DISEASE
28652 ACQUIRED HEMOPHILIA
28653 ANTIPHOSPHOLIPID ANTIBODY WITH HEMORRHAGIC DISORDER
28659 OT HEM D/T CIRC ANTICOAG
2866 DEFIBRINATION SYNDROME
2867 ACQ COAGUL FACTOR DEFIC
2869 COAGULAT DEFECT NEC NOS
2871 QUALITATIVE PLATELET DEFECTS
28730 PRIMARY THROMBOCYTOPENIA,UNSPECIFIED
28731 IMMUNE THROMBOCYTOPENIC PURPURA
28732 EVANS SYNDROME

0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism

28733 CONGENITAL AND HEREDITARY THROMBOCYTOPENIC PURPURA
28739 OTHER PRIMARY THROMBOCYTOPENIA
28741 STTRANSFUSION PURPURA
2875 THROMBOCYTOPENIA UNSPECIFIED
2878 OTHER SPECIFIED HEMORRHAGIC CONDITIONS
2879 UNSPECIFIED HEMORRHAGIC CONDITIONS
PSI10
See attached excel document for
ICD-9-CM Acute myocardial infarction diagnosis codes
ICD-9-CM Cardiac arrhythmia diagnosis codes
ICD-9-CM Cardiac arrest diagnosis code
ICD-9-CM Shock diagnosis codes
ICD-9-CM Hemorrhage diagnosis codes
ICD-9-CM Gastrointestinal hemorrhage diagnosis codes
ICD-9-CM Chronic renal failure diagnosis codes
PSI11
See attached excel document for
ICD-9-CM Tracheostomy procedure codes
ICD-9-CM Neuromuscular disorder diagnosis codes
ICD-9-CM Laryngeal, pharyngeal, nose, mouth and pharynx surgery procedure codes
ICD-9-CM Face procedure codes
ICD-9-CM Craniofacial anomalies diagnosis codes
ICD-9-CM Esophageal resection procedure codes
ICD-9-CM Lung cancer procedure codes
ICD-9-CM Degenerative neurological disorder diagnosis codes
PSI12
ICD-9-CM Interruption of vena cava procedure code:
387 INTERRUPTION OF VENA CAVA
ICD-9-CM ECMO procedure code:
3965 EXTRACORPOREAL MEMBRANE OXYGENATION
PSI13
See Patient Safety Indicators Appendices:
Appendix F – Infection Diagnosis Codes
Appendix H – Cancer Diagnosis Codes
Appendix I – Immunocompromised State Diagnosis and Procedure Codes
PSI14
See Patient Safety Indicators Appendices:
Appendix I – Immunocompromised State Diagnosis and Procedure Codes
See attached excel document for
ICD-9-CM Abdominopelvic surgery procedure codes
PSI15
ICD-9-CM Accidental puncture or laceration during a procedure diagnosis code:
9982 ACCIDENTAL PUNCTURE OR LACERATION DURING A PROCEDURE

0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism

Exclusions:

Adjustment/Stratification:

Level of Analysis: PSI90_NQF0531_Evidence_150310.docx

Setting of Care: The patient safety composite measure was developed to summarize patient safety across multiple indicators to monitor performance over time or across regions and populations using a methodology that can be applied at the national, regional, State and provi

Type of Measure: Surgery : Cardiac Surgery, Pulmonary/Critical Care : Critical Care, Surgery : General Surgery, Gastrointestinal (GI) : GI Bleeding, Surgery : Perioperative, Pulmonary/Critical Care, Renal, Surgery, Surgery : Thoracic Surgery, Surgery : Vascular Surgery

Data Source: Hospital/Acute Care Facility

Measure Steward: Agency for Healthcare Research and Quality

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **16-Y; 8-N I**; 1b. Performance Gap: **9-H; 9-M; 6-L; 0-I;** 1c. Composite- Quality Construct and Rationale: **6-H; 7-M; 11-L; 0-I**

<u>Rationale</u>:

- The Committee agreed that the outcomes in this measure were associated with one or more healthcare actions. However, there was concern that some of the elements of the composite had variable preventability.
- The developers reported that the items within the composite are positively correlated. The correlations range in the low 0.08 up to the 30s (not very high).
- The developers referenced several processes of care that are associated with lower rates for each of the components in the composite.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **4-H; 10-M; 9-L; 1-I** 2b. Validity: **2-H; 11-M; 7-L; 2-I** 1c. Composite Construction**: 4-H; 12-M; 7-L; 1-I**

<u>Rationale</u>:

- The Committee agreed that the updated version of the measure provided by AHRQ was improved from the 2014 version reviewed by the Committee, specifically noting that the new weighting focusing on harm rather than just the frequency of events, was more clinically relevant than the previous version of the measure.
- During reliability testing, the developers examined the true difference rather than random chance and noise. Their results show a reliability scores in the 70s, which is comparable to other endorsed measures
- Aggregating a number of individual measures into a single composite can generate an overall performance score that is more reliable than if the individual measure scores were taken in isolation.
- Empirical field validity testing was conducted at the performance measure score level for the overall composite by correlating the composite scores with the rates calculated from the 3M Potentially Preventable Readmissions measure. .The Pearson correlation value, was 0.11 with a p-value of <0.0001.

3. Feasibility: 12-H; 8-M; 3-L; 1-I

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

<u>Rationale</u>:

- The Committee had no concerns about the feasibility of this measure given that it is gathered with administrative claims data.

4. Use and Usability: 12-H; 6-M; 6-L; 0-I

0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism
(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement) Rationale: • There were concerns about the use of this measure in value-based purchasing, despite the improvements the developer has made, because may not accurately reflect that an actual preventable complication occurred or may focus on preventing measured events that are less clinically important. • This measure is used to monitor performance in national and regional reporting. It was also developed to enable comparative reporting and quality improvement at the provider or the hospital level.
5. Related and Competing Measures • Concerns were raised by the Committee that some of the elements of this measure, notably the central line related blood stream infections and post-operative hip fracture, may be better captured in other NQF approved measures rather than using administrative claims data. In addition, this measure is related to NQF 532, which is the pediatric version of the same measure 0347.
Standing Committee Recommendation for Endorsement: **14-Y; 10-N** • Since 58% of the Committee voted to recommend this measure, it did not achieve consensus. It will move forward to the comment period and the Committee will discuss and revote after the public comment.
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

Measures with Endorsement Decision Deferred

The following measures submitted for the Standing Committee's review during the project have been deferred for future consideration:

0352 Failure to Rescue In-Hospital Mortality (risk adjusted)

Submission | Specifications

Description: Percentage of patients who died with a complications in the hospital.

Numerator Statement: Patients who died with a complication plus patients who died without documented complications. Death is defined as death in the hospital.

All patients in an FTR analysis have developed a complication (by definition).

Complication patient has at least one of the complications defined in Appendix B (see attachment and website http://www.research.chop.edu/programs/cor/node/26). Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission.

Comorbidities are defined in Appendix C (see attachment and website http://www.research.chop.edu/programs/cor/node/26) using secondary ICD9 diagnosis codes of the current admission and primary or secondary ICD9 diagnosis codes of previous admission within 90 days of the admission date of the current admission.

*When Physician Part B is available, the definition of complications and comorbidities are augmented to include CPT codes.

Denominator Statement: General Surgery, Orthopedic and Vascular patients in specific DRGs with complications plus patients in specific General Surgery, Orthopedic and Vascular DRGs who died in the hospital without complications.

Inclusions: adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A http://www.research.chop.edu/programs/cor/node/26).

Exclusions: Patients over age 90, under age 18.

Adjustment/Stratification:

Level of Analysis: Population : County or City, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional, Population : State

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: The Children's Hospital of Philadelphia

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **23-Y; 1-N**; 1b. Performance Gap: **5-H; 14-M; 2-L; 3-I;**

Rationale:

- The evidence suggests that failure-to-rescue is influenced by hospital characteristics. Rates differ based on characteristics such as: nurse-to-bed ratio, number of hospital beds, anesthesiologists who are board certified, surgeons who are board certified, etc.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **3-H; 16-M; 3-L; 2-I** 2b. Validity: **3-H; 17-M; 2-L; 2-I**

Rationale:

- The measure uses a risk-adjusted logistic regression model with 160 characteristics.
- Data used for testing included Medicare claims for general surgery patients ages 65-90 for claims spanning July 1, 1999- June 30, 2000. These data included information on 1,467 hospitals and 403,679 patients.
- The reliability statistic reported was 0.32, but no interpretation of that value was provided.
- Validity testing was conducted via systematic assessment of face validity of the performance measure score and provides results of a correlation analysis.

3. Feasibility: 12-H; 10-M; 2-L; 0-I

0352 Failure to Rescue In-Hospital Mortality (risk adjusted)
(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented) Rationale: • Data are collected through administrative claims and coded by someone other than the person obtaining the original information. • All data elements are in defined fields in electronic claims.
4. Use and Usability: 7-H; 14-M; 2-L; 1-I *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The developer provided several papers that show how the measure can be and is used within organizations although it is not currently used in public reporting or accountability programs.
5. Related and Competing Measures • This measure is related to 353: Failure to Rescue 30-Day Mortality (risk adjusted) (The Children's Hospital of Philadelphia). • This measure is potentially competing with 0351: Death among surgical inpatients with serious, treatable complications (PSI 4) (AHRQ), but, as that measure is not under review in this project and a decision has not been made on this measure, the related/competing issue was not discussed.
Standing Committee Recommendation for Endorsement: **14-Y; 10-N** • The Committee withdrew their votes on this measure, requested more information from the developers and will vote on the measure again at a later point in the project.
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
Rationale for deferral • There were several questions raised during the Standing Committee in-person meeting that the developer could not answer regarding the risk adjustment model for this measure. Therefore, there was a plan to table the discussion for this measure to a future call where the Standing Committee will hear additional information from the developer before conducting a final vote on this measure.
9. Appeals

0353 Failure to Rescue 30-Day Mortality (risk adjusted)

Submission | Specifications

Description: Percentage of patients who died with a complication within 30 days from admission

Numerator Statement: Patients who died with a complication plus patients who died without documented complications. Death is defined as death within 30 days from admission.

All patients in an FTR analysis have developed a complication (by definition).

Complicated patient has at least one of the complications defined in Appendix B (see attachment and website http://www.research.chop.edu/programs/cor/node/26). Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission.

Comorbidities are defined in Appendix C (see attachment and website http://www.research.chop.edu/programs/cor/node/26) using secondary ICD9 diagnosis codes of the current admission and primary or secondary ICD9 diagnosis codes of previous admission within 90 days of the admission date of the current admission.

*When Physician Part B is available, the definition of complications and comorbidities are augmented to include CPT codes

Denominator Statement: General Surgery, Orthopedic and Vascular patients in specific DRGs with complications plus patients who died in the hospital without complications.

Inclusions: adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A at

http://www.research.chop.edu/programs/cor/node/26)

Exclusions: Patients over age 90, under age 18.

Adjustment/Stratification:

Level of Analysis: Population : County or City, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional, Population : State

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: The Children's Hospital of Philadelphia

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: The measure does not meet the Importance criteria

(1a. Evidence, 1b. Performance Gap,)

1a. Evidence: Evidence: **17-Y; 1-7**; 1b. Performance Gap: **X-H; X-M; X-L; X-I**

-Rationale:

- The evidence suggests that failure-to-rescue is influenced by hospital characteristics. Rates differ based on characteristics such as: nurse-to-bed ratio, number of hospital beds, anesthesiologists who are board certified, surgeons who are board certified, etc.
- The developers provided the same evidence as for measure 0352.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-X**; **M-X**; **L-X**; **I-X** 2b. Validity: **H-X**; **M-X**; **L-X**; **I-X**

Rationale:

- The measure uses a risk-adjusted logistic regression model with 160 characteristics.
- Data used for testing included Medicare claims for general surgery patients ages 65-90 for claims spanning July 1, 1999- June 30, 2000. These data included information on 1,467 hospitals and 403,679 patients.
- The reliability statistic reported was 0.32, but no interpretation of that value was provided.
- Validity testing was conducted via systematic assessment of face validity of the performance measure score and provides results of a correlation analysis.

0353 Failure to Rescue 30-Day Mortality (risk adjusted)
• The developer did not provide the list of characteristics included in the regression model. • The Committee asked the developer to provide the missing information as well as address their other concerns.
3. Feasibility: H-X; M-X; L-X; I-X *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • N/A
4. Use and Usability: H-X; M-X; L-X; I-X *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • N/A
5. Related and Competing Measures • This measure is related to 0352: Failure to Rescue in-Hospital Mortality (risk adjusted) (The Children's Hospital of Philadelphia). • This measure is potentially competing with 0351: Death among surgical inpatients with serious, treatable complications (PSI 4) (AHRQ), but, as that measure is not under review in this project and a decision has not been made on this measure, the related/competing issue was not discussed.
Standing Committee Recommendation for Endorsement: **Y-X**; **N-X** • The Committee withdrew their votes on this measure, requested more information from the developers and will vote on the measure again at a later point in the project.
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
Reason for Deferral: There were several questions raised during the Standing Committee in-person meeting that the developer could not answer regarding the risk adjustment model for this measure. Therefore, there was a plan to table the discussion for this measure to a future call where the Standing Committee will hear additional information from the developer before conducting a final vote on this measure.
9.Appeals

Measures Not Recommended

2729 Timely Evaluation of High-Risk Individuals in the Emergency Department (ED)
Submission | **Specifications**
Description: Median time from ED arrival to qualified provider evaluation for individuals triaged with a severity level of "immediate" or "emergent" on a 5-level triage system. **Numerator Statement**: The proposed measure is a continuous variable measure. Continuous variable measures do not have a numerator statement. In this section we include the measure observation statement. Median time difference (in minutes) from ED arrival to qualified provider contact for emergency department patients triaged at the two highest-risk levels based on a 5-level triage system (e.g., "immediate" or "emergent"). **Denominator Statement**: The proposed measure is a continuous variable measure. Continuous variable measures

do not have a denominator statement. In this section we include the measure population statement.

All emergency department encounters for which individuals are triaged at the two highest-risk levels based on a 5-level triage system (e.g. "immediate" or "emergent").

Exclusions: None

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 06/17/2015-06/18/2015

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **8-H; 11-M; 1-L; 0-I**; 1b. Performance Gap: **14-H; 8-M; 0-L; 0-I**

<u>Rationale</u>:

- The developers provided a systematic review to support the relationship between timely evaluation in the ED and patient outcomes.
- The developers referenced an additional 16 recent studies related to timely evaluation provided in the emergency department (ED), demonstrating that higher levels of ED crowding are associated with worse outcomes and higher complication rates.
- The developers presented standards from the American College of Emergency Physicians and the Emergency Nurses Association that support the measure.

2. Scientific Acceptability of Measure Properties: <u>The measure does not meet the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **0-H; 5-M; 13-L; 0-I** 2b. Validity: **H-X**; **M-X**; **L-X**; **I-X**

<u>Rationale</u>:

- Reliability testing was conducted at the level of the data element and performance measure score. The signal-to-noise analysis was not used to assess the reliability of measure performances as the measure is expressed as a median value (i.e., the within hospital variation is removed), and therefore, the signal-to-noise methodology is not suitable to be applied without some measure of within hospital variation. In order to assess measure reliability in the context of the observed variability across measurement units (hospital facilities), the developer utilized Wilcoxon scores of the median times to produce the Kruskal-Wallis test (ANOVA test for distribution-free populations).
- Empirical validity testing was done at the data element and performance measure score level.
- The measure failed the reliability criteria because there was poor agreement between the time a patient sees a provider and what is documented in the chart.

3. Feasibility: H-X; M-X; L-X; I-X

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

<u>Rationale</u>:

- N/A

4. Use and Usability: H-X; M-X; L-X; I-X

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

<u>Rationale</u>:

- N/A

2729 Timely Evaluation of High-Risk Individuals in the Emergency Department (ED)
5. Related and Competing Measures • N/A
Standing Committee Recommendation for Endorsement: **Y-X**; **N-X**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

Ad Hoc Reviews

0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure
Submission | **Specifications**
Description: Standardized Infection Ratio (SIR) of healthcare-associated, catheter-associated urinary tract infections (UTI) will be calculated among patients in bedded inpatient care locations, except level II or level III neonatal intensive care units (NICU. This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavior health hospitals. **Numerator Statement**: Total number of observed healthcare-associated CAUTI among patients in bedded inpatient care locations (excluding patients in Level II or III neonatal ICUs). **Denominator Statement**: Total number of indwelling urinary catheter days for each location under surveillance for CAUTI during the data period. **Exclusions**: The following are not considered indwelling catheters by NHSN definitions: 1.Suprapubic catheters 2.Condom catheters 3.“In and out” catheterizations 4. Nephrostomy tubes Note, that if a patient has either a nephrostomy tube or a suprapubic catheter and also has an indwelling urinary catheter, the indwelling urinary catheter will be included in the CAUTI surveillance. **Adjustment/Stratification**: **Level of Analysis:** Facility, Population : National, Population : Regional, Population : State **Setting of Care:** Hospice, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility, Other **Type of Measure**: Outcome **Data Source**: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Other, Paper Medical Records **Measure Steward**: Centers for Disease Control and Prevention
STANDING COMMITTEE MEETING [07/09/2015] **1. Should the measure continue be endorsed with these changes?**: **Y-19**; **N-0** Rationale:

0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure

- This measure was submitted for an ad hoc review because of the material changes made to the measure, specifically with the purpose of more accurately identifying CAUTIs. The measure will now require at least 100,000 colony forming units for at least one bacterium in urine culture. It now excludes previously reported cases where the colony forming units were at least a thousand but less than 100,000 and supported by positive urinalysis. In addition, the measure will now exclude nonbacterial organisms as the sole organism in the urine culture. This change was in response to changes that were made to the NHSN healthcare associated infections (HAIs) criteria that affect the definition of CAUTI and HAIs. These changes better reflect the clinical determination of an infection being present on admission versus healthcare associated.
- The second change involved the "infection control window period", which is a seven day period during which all elements of the infection criteria has to occur together in order for the criteria to be matched and an infection to be identified. Lastly, a repeat infection timeframe is now tied to CAUTIs. There is a 14-day period during which 02 UTIs will be reported during the same period. Previously, there was no time period.
- The Committee had concerns whether there have been any risk adjustments with the new criteria or validation studies. The developer noted that there have not been any further studies. They will be recalculating the standardized incidence ratio once the data are finally submitted to NHSN in the fall of 2015.
- The changes also improve the face validity of the measure.
- Despite concerns, the Committee agreed that the changes were acceptable.

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0139 National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure

Submission | Specifications

Description: Standardized Infection Ratio (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) will be calculated among patients in bedded inpatient care locations.

This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavioral health hospitals.

Numerator Statement: Total number of observed healthcare-associated CLABSI among patients in bedded inpatient care locations.

Denominator Statement: Total number of central line days for each location under surveillance for CLABSI during the data period.

Exclusions: 1. Pacemaker wires and other non-lumened devices inserted into central blood vessels or the heart are excluded as CLs.

2. Extracoporeal membrane oxygenation lines, femoral arterial catheters, intraaortic balloon pump devices, and hemodialysis reliable outflow catheters (HeRO) are excluded as CLs.

3. Peripheral intravenous lines are excluded as CLs.

Adjustment/Stratification:

Level of Analysis: Facility, Population : National, Population : Regional, Population : State

Setting of Care: Hospice, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long

0139 National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure

Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Other

Type of Measure: Outcome

Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Other, Paper Medical Records

Measure Steward: Centers for Disease Control and Prevention

STANDING COMMITTEE MEETING [07/09/2015]

1. Should the measure continue be endorsed with these changes?: **Y-19**; **N-0**

Rationale:

- This was a re-specification of this measure to better define a CLABSI. The CLABSI surveillance criteria now include a blood stream infection (BSI) as an NHSN primary BSI. Only primary BSIs can be reported to NHSN and identified as a CLABSI. A blood culture has to either contain one organism that matches an organism found in a site specific section culture that's used to meet the site infection criteria or the blood culture has to be an element used to meet the site specific infection criteria. The developer has restricted the methods by which a BSI can be considered secondary to another source and another site of infection which would exclude it from being classified as a CLABSI. In addition, the option to use clinical judgment to determine whether or not a BSI is secondary was removed to reduce variability and inconsistency in the data. Site facilities now have to collect the blood culture within a 14 to 17 day period and make the determination.
- The changes also create a concrete timeframe in which a BSI can be considered secondary to another infection site.
- After a presentation by the developer, the Committee agreed the changes improve the consistency of the data reported through the measure.
- There were concerns that the new measure specifications had not undergone formal testing as of yet.
- However, despite these concerns, the Committee agreed that the changes were acceptable.

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

Standing Committee Recommendation for Endorsement: **Y-X**; **N-X**

6. Public and Member Comment

-

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)

Submission | **Specifications**

Description: Accidental punctures or lacerations (secondary diagnosis) during a procedure of the abdomen or pelvis per 1,000 discharges for patients ages 18 years and older that require a second abdominopelvic operation one or more days after the index procedure. Excludes cases with accidental puncture or laceration as a principal diagnosis, cases with accidental puncture or laceration as a secondary diagnosis that is present on admission and obstetric cases.

Numerator Statement: Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-9-CM diagnosis codes for accidental puncture or laceration during a procedure and second abdominopelvic operation 1 day or more after an index abdominopelvic operation.

Denominator Statement: Patients ages 18 years and older with any procedure code for an abdominopelvic procedure.

Exclusions: Exclude cases:

- with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for accidental puncture or laceration during a procedure
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

STANDING COMMITTEE POST IN-PERSON WEB MEETING 07/09/2015

Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **20-Y; 1-N**; 1b. Performance Gap: **6-H; 14-M; 3-L; 4-I;**

<u>Rationale</u>:

- Because of the updated specifications and the greater focus on abdominal and pelvic punctures and lacerations and re-operations, which are more reflective of preventable events and patient harms, the Committee felt that the updated measure was improved and there was better evidence that it was an important outcome and an improvement over the prior version of this measure.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-1**; **M-16**; **L-3**; **I-1** 2b. Validity: **H-5**; **M-15**; **L-3**; **I-0**

<u>Rationale</u>:

- The Committee was concerned that the measure had not undergone the same testing for reliability as previous versions of the measure; however they ultimately agreed it was acceptable.

3. Feasibility: H-17; M-3; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)

<u>Rationale</u>:

- There were no concerns raised by the Committee for this measure in terms of feasibility as this measure is based on claims data.

4. Use and Usability: H-13; M-7; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b.

0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)
Quality Improvement) Rationale: • There were no concerns for this measure in terms of usability and use. This measure is also one of the components of PSI 90, which was also reviewed during this Standing Committee meeting.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-20**; **N-0**
6. Public and Member Comment •
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

Measures Withdrawn from Consideration

One measure previously endorsed by NQF has not been re-submitted for maintenance of endorsement. Endorsement for these measures will be removed.

Measure	Reason for withdrawal
0586: Warfarin_PT/ INR Test (Resolution Health, Inc.)	Developer did not resubmit for maintenance.

Appendix B: NQF Patient Safety Portfolio and Related Measures

Falls

- 0035 Fall Risk Management (FRM)
- 0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls
- 0141 Patient Fall Rate
- 0202 Falls with Injury
- 0266 Patient Fall
- 0537 Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate
- 0674 Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)

General Safety Measures

- 0263 Patient Burn
- 0267 Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant
- 0301 Surgery patients with appropriate hair removal
- 0344 Accidental Puncture or Laceration Rate (PDI 1)
- 0345 Accidental Puncture or Laceration Rate (PSI 15)
- 0346 Iatrogenic Pneumothorax Rate (PSI 6)
- 0348 Iatrogenic Pneumothorax Rate (PDI 5)
- 0349 Transfusion Reaction Count (PSI 16)
- 0350 Transfusion Reaction Count (PDI 13)
- 0362 Retained Surgical Item or Un-retrieved Device Fragment Count Technical (PDI 03)
- 0363 Retained Surgical Item or Un-retrieved Device Fragment Count (PSI 05)
- 0515 Ambulatory surgery patients with appropriate method of hair removal
- 0531 Patient Safety for Selected Indicators (PSI 90)
- 0687 Percent of Residents Who Were Physically Restrained (Long Stay)
- 0689 Percent of Residents Who Lose Too Much Weight (Long-Stay)
- 0709 Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year
- 0593 Pulmonary Embolism Anticoagulation >= 3 Months

Healthcare Associated Infections

- 0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure
- 0139 National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure
- 0684 Percent of Residents with a Urinary Tract Infection (Long-Stay)
- 0751 Risk Adjusted Urinary Tract Infection Outcome Measure After Surgery
- 0753 American College of Surgeons – Centers for Disease Control and Prevention (ACS-CDC) Harmonized Procedure Specific Surgical Site Infection (SSI) Outcome Measure
- 1716 National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia Outcome Measure

- 1717 National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure

Medication Safety

- 0022 Use of High-Risk Medications in the Elderly (DAE)
- 0097 Medication Reconciliation
- 0419 Documentation of Current Medications in the Medical Record
- 0541 Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category
- 0553 Care for Older Adults (COA) – Medication Review
- 0555 INR Monitoring for Individuals on Warfarin
- 2337 Antipsychotic Use in Children Under 5 Years Old
- 2371 Annual Monitoring for Patients on Persistent Medications

Mortality

- 0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2)
- 0352 Failure to Rescue In-Hospital Mortality (risk adjusted)
- 0353 Failure to Rescue 30-Day Mortality (risk adjusted)
- 0530 Mortality for Selected Conditions

Pressure Ulcers

- 0337 Pressure Ulcer Rate (PDI 2)
- 0538 Pressure Ulcer Prevention and Care
- 0678 Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short-Stay)
- 0679 Percent of High Risk Residents with Pressure Ulcers (Long Stay)

Venous Thromboembolism (VTE)

- 0239 Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis
- 0371 Venous Thromboembolism Prophylaxis
- 0372 Intensive Care Unit Venous Thromboembolism Prophylaxis
- 0373 Venous Thromboembolism Patients with Anticoagulation Overlap Therapy
- 0450 Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (PSI 12)
- 0581 Deep Vein Thrombosis Anticoagulation >= 3 Months

Workforce

- 0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
- 0205 Nursing Hours per Patient Day
- 0206 Practice Environment Scale - Nursing Work Index (PES-NWI) (composite and five subscales)

Appendix C: Patient Safety Portfolio—Use in Federal Programs

NQF #	Title	Federal Programs: Finalized 2014-2015
0022	Use of High-Risk Medications in the Elderly (DAE)	Meaningful Use [HER Incentive Program] – Eligible Professionals; Medicare Part D Plan Rating; Physician Feedback; Physician Quality Reporting System (PQRS); Value Based Payment Modifier Program
0035	Fall Risk Management (FRM)	Medicare Part C Plan Rating
0097	Medication Reconciliation	Physician Compare; Physician Feedback; Physician Quality Reporting System (PQRS); Value Based Payment Modifier Program
0101	Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls	Meaningful Use [HER Incentive Program] – Eligible Professionals; Medicare Shared Savings Program; Physician Compare; Physician Feedback; Physician Quality Reporting System (PQRS); Value Based Payment Modifier Program
0138	National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure	Hospital Acquired Condition Reduction Program; Hospital Compare; Hospital Inpatient Quality Reporting Program; Hospital Value-Based Purchasing; Inpatient Rehabilitation Facilities; Quality Reporting; Long-Term Care Hospital Quality Reporting; PPS-Exempt Cancer Hospital Quality Reporting
0139	National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure	Children's Health Insurance Program Reauthorization Act Quality Reporting; Hospital Acquired Condition Reduction Program; Hospital Compare; Hospital Inpatient Quality Reporting Program; Hospital Inpatient Quality Reporting; Hospital Value-Based Purchasing; Inpatient Rehabilitation Facilities; Quality Reporting; Long-Term Care Hospital Quality Reporting; PPS-Exempt Cancer Hospital Quality Reporting
0141	Patient Fall Rate	NA
0202	Falls with Injury	NA
0204	Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)	NA
0205	Nursing Hours per Patient Day	NA
0206	Practice Environment Scale - Nursing Work Index (PES-NWI)	NA

NQF #	Title	Federal Programs: Finalized 2014-2015
	(composite and five subscales)	
0239	Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis	Physician Feedback; Physician Quality Reporting System (PQRS); Value Based Payment Modifier Program
0263	Patient Burn	Ambulatory Surgical Center Quality Reporting
0266	Patient Fall	Ambulatory Surgical Center Quality Reporting
0267	Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant	Ambulatory Surgical Center Quality Reporting
0301	Surgery patients with appropriate hair removal	Hospital Compare; Military Health System
0337	Pressure Ulcer Rate (PDI 2)	NA
0344	Accidental Puncture or Laceration Rate (PDI 1)	NA
0345	Accidental Puncture or Laceration Rate (PSI 15)	Hospital Compare
0346	Iatrogenic Pneumothorax Rate (PSI 6)	Hospital Compare
0347	Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2)	NA
0348	Iatrogenic Pneumothorax Rate (PDI 5)	NA
0349	Transfusion Reaction Count (PSI 16)	NA
0350	Transfusion Reaction Count (PDI 13)	NA
0352	Failure to Rescue In-Hospital Mortality (risk adjusted)	NA

NQF #	Title	Federal Programs: Finalized 2014-2015
0353	Failure to Rescue 30-Day Mortality (risk adjusted)	NA
0362	Retained Surgical Item or Un-retrieved Device Fragment Count Technical (PDI 03)	NA
0363	Retained Surgical Item or Un-retrieved Device Fragment Count (PSI 05)	NA
0371	Venous Thromboembolism Prophylaxis	Hospital Compare; Hospital Inpatient Quality Reporting; Meaningful Use [HER Incentive Program]-Hospitals; CAHs
0372	Intensive Care Unit Venous Thromboembolism Prophylaxis	Hospital Compare; Hospital Inpatient Quality Reporting; Meaningful Use [HER Incentive Program]-Hospitals; CAHs
0373	Venous Thromboembolism Patients with Anticoagulation Overlap Therapy	Hospital Compare; Hospital Inpatient Quality Reporting; Meaningful Use [HER Incentive Program]-Hospitals; CAHs
0419	Documentation of Current Medications in the Medical Record	Meaningful Use [HER Incentive Program]-Eligible Professionals; Medicare Shared Savings Program; Physician Feedback; Physician Quality Reporting System (PQRS); Value Based Payment Modifier Program
0450	Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (PSI 12)	Hospital Compare
0515	Ambulatory surgery patients with appropriate method of hair removal	NA
0530	Mortality for Selected Conditions	Hospital Compare
0531	Patient Safety for Selected Indicators (PSI 90)	Hospital Acquired Condition Reduction Program; Hospital Compare; Hospital Inpatient Quality Reporting; Hospital Value Based Purchasing

NQF #	Title	Federal Programs: Finalized 2014-2015
0537	Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate	Home Health Compare; Home Health Quality Reporting
0538	Pressure Ulcer Prevention and Care	Home Health Compare; Home Health Quality Reporting
0541	Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category	Medicare Part D Planning
0553	Care for Older Adults (COA) – Medication Review	Medicare Part C Planning
0555	INR Monitoring for Individuals on Warfarin	NA
0581	Deep Vein Thrombosis Anticoagulation >= 3 Months	NA
0593	Pulmonary Embolism Anticoagulation >= 3 Months	NA
0674	Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)	Long-Term Care Hospital Quality Reporting; Nursing Home Compare; Nursing Home Quality Initiative and Nursing Home Compare
0678	Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short-Stay)	Inpatient Rehabilitation Facilities Quality Reporting; Long-Term Care Quality Reporting; Nursing Home Compare; Nursing Home Quality Initiative and Nursing Home Compare
0679	Percent of High Risk Residents with Pressure Ulcers (Long Stay)	Nursing Home Compare; Nursing Home Quality Initiative and Nursing Home Compare
0684	Percent of Residents with a Urinary Tract Infection (Long-Stay)	Nursing Home Compare; Nursing Home Quality Initiative and Nursing Home Compare
0687	Percent of Residents Who Were Physically Restrained (Long Stay)	Nursing Home Compare; Nursing Home Quality Initiative and Nursing Home Compare

NQF #	Title	Federal Programs: Finalized 2014-2015
0689	Percent of Residents Who Lose Too Much Weight (Long-Stay)	Nursing Home Compare; Nursing Home Quality Initiative and Nursing Home Compare
0709	Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year	NA
0751	Risk Adjusted Urinary Tract Infection Outcome Measure After Surgery	NA
0753	American College of Surgeons – Centers for Disease Control and Prevention (ACS-CDC) Harmonized Procedure Specific Surgical Site Infection (SSI) Outcome Measure	Hospital Acquired Condition Reduction Program; Hospital Compare; Hospital Inpatient Quality Reporting; Hospital Value Based Purchasing; PPS-Exempt Cancer Hospital Quality Reporting
1716	National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia Outcome Measure	Hospital Acquired Condition Reduction Program; Hospital Compare; Hospital Inpatient Quality Reporting; Hospital Value Based Purchasing; Inpatient Rehabilitation Facilities Quality Reporting; Long-Term Care Quality Reporting
1717	National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure	Hospital Acquired Condition Reduction Program; Hospital Compare; Hospital Inpatient Quality Reporting; Hospital Value Based Purchasing; Inpatient Rehabilitation Facilities Quality Reporting; Long-Term Care Quality Reporting
2337	Antipsychotic Use in Children Under 5 Years Old	NA
2371	Annual Monitoring for Patients on Persistent Medications	Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults

Appendix D: Patient Safety Standing Committee and NQF Staff

STANDING COMMITTEE

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Appendix E: Measure Specifications

	0139 National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure
Status	Ad-Hoc Review Requested
Steward	Centers for Disease Control and Prevention
Description	Standardized Infection Ratio (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) will be calculated among patients in bedded inpatient care locations. This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavioral health hospitals.
Type	Outcome
Data Source	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Other, Paper Medical Records NHSN Primary BSI collection form NHSN Denominator for ICU form NHSN Denominator for NICU form NHSN Denominator for Specialty Care Area/Oncology Form Available at measure-specific web page URL identified in S.1 Attachment NHSN_Data_Dictionary_7.2.xlsx
Level	Facility, Population : National, Population : Regional, Population : State
Setting	Hospice, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Other Oncology Hospital
Numerator Statement	Total number of observed healthcare-associated CLABSI among patients in bedded inpatient care locations.
Numerator Details	Numbers of CLABSIs attributed to each location are counted for each month utilizing the definitions below. CLABSIs attributed to neonatal ICUs are stratified by birthweight category. CLABSIs attributed to Special Care Areas (inpatient dialysis locations) or Oncology Locations are stratified by association with temporary vs. permanent central line. 1. Definition of infection that is Present on Admission (POA): An infection where all of the elements of an infection definition are present during the two calendar days before the day of admission, the first day of admission (day 1) and/or the day after admission (day 2) and are documented in the medical chart. Infections that are POA should not be reported as healthcare-associated infections (HAI) and are not reported as CLABSI. Acceptable documentation does not include self-reported symptoms by the patient (e.g., patient reporting having a fever prior to arrival to the hospital). Instead, symptoms must be documented in the chart by a healthcare professional during the POA time frame (e.g., nursing home documents fever prior to arrival to the hospital). Physician diagnosis alone, cannot be accepted as evidence of a laboratory confirmed bloodstream infection. NOTE: For POA, the temperature value does not need to be known to establish the presence of a fever. 2. Definition of Healthcare-associated Infection (HAI): Any infection reported to NHSN must meet the definition of an NHSN HAI, that is, a localized or systemic condition resulting from an adverse reaction to the presence of an infectious agent(s) or its toxin(s) that was not present on admission to the acute care facility. An infection is considered an HAI if all elements of a CDC/NHSN site-specific infection criterion were not present during the POA time period but were all present on or after the 3rd calendar day of admission to the facility

(the day of hospital admission is calendar day 1). All elements used to meet the CDC/NHSN site-specific infection criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between any two adjacent elements. The definition of a gap day is a calendar day during which no infection criterion elements are present. Adjacent elements are elements that occur next to each other chronologically over the course of an infection. If all elements of a CDC/NHSN site-specific infection criterion are present on the day of transfer or the next day from one inpatient location to another in the same facility or a new facility, the infection is attributed to the transferring location or facility. Likewise, if all elements of a CDC/NHSN site-specific infection criterion are present on the day of discharge or the next day, the infection is attributed to the discharging location. Clinical evidence may be derived from direct observation of the infection site or review of information in the patient chart or other clinical records.

3. Definition of CLABSI: A laboratory-confirmed bloodstream infection (LCBI) where central line (CL) or umbilical catheter (UC) was in place for >2 calendar days on the date of event, with day of device placement being Day 1, and a CL or UC was in place on the date of event or the day before. If a CL or UC was in place for >2 calendar days and then removed, the LCBI criteria must be fully met on the day of discontinuation or the next day. If the patient is admitted or transferred into a facility with a central line in place (e.g., tunneled or implanted central line), and that is the patient's only central line, day of first access as an inpatient is considered Day1. "Access" is defined as line placement, infusion or withdrawal through the line.

4. Definition of Central line: An intravascular catheter that terminates at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring. The following are considered great vessels for the purpose of reporting central-line BSI and counting central-line days in the NHSN system: Aorta, pulmonary artery, superior vena cava, inferior vena cava, brachiocephalic veins, internal jugular veins, subclavian veins, external iliac veins, common femoral veins, and in neonates, the umbilical artery/vein. NOTE: Neither the insertion site nor the type of device may be used to determine if a line qualifies as a central line. Pacemaker wires and other non-lumened devices inserted into great vessels or the heart, peripheral intravenous lines, extracorporeal membrane oxygenation (ECMO), intraaortic balloon pump (IABP) devices, and hemodialysis reliable outflow (HeRO) catheters are among those excluded as central lines.

5. Definition of Infusion: The introduction of a solution through a blood vessel via a catheter lumen. This may include continuous infusions such as nutritional fluids or medications, or it may include intermittent infusions such as flushes or IV antimicrobial administration, or blood, in the case of transfusion or hemodialysis.

6. Definition of Umbilical Catheter: A central vascular device inserted through the umbilical artery or umbilical vein in a neonate.

7. Definition of Temporary Central Line: A non-tunneled, non-implanted catheter.

8. Definition of Permanent Central Line: Tunneled catheters, (including certain dialysis catheters) and implanted catheters (including ports)

9. Definition of Laboratory Confirmed Bloodstream Infection (LCBI):

LCBI must meet one of the following criteria:

- LCBI Criterion 1: Patient has a recognized pathogen cultured from one or more blood cultures and organism cultured from blood is not related to an infection at another site (See Appendix 1 Secondary BSI Guide available at http://www.cdc.gov/nhsn/PDFs/pscManual/4PSC_CLABScurrent.pdf)
- LCBI Criterion 2: Patient has at least one of the following signs or symptoms: fever (>38 degrees C), chills, or hypotension and positive laboratory results are not related to an infection

at another site (See Appendix 1 Secondary BSI Guide) and the same common commensal (i.e., diphtheroids [Corynebacterium spp. not C. diphtheriae], Bacillus spp. [not B. anthracis], Propionibacterium spp., coagulase-negative staphylococci [including S. epidermidis], viridans group streptococci, Aerococcus spp., and Micrococcus spp.) is cultured from two or more blood cultures drawn on separate occasions. Criterion elements must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. (NOTE: The matching common commensals represent a single element; therefore, the collection date of the first common commensal is the date of the element used to determine the Date of Event).

- LCBI Criterion 3: Patient 1 year of age or less has at least one of the following signs or symptoms: fever (>38 degrees C core), hypothermia (<36 degrees C core), apnea, or bradycardia and positive laboratory results are not related to an infection at another site (See Appendix 1 Secondary BSI Guide) and the same common commensal (i.e., diphtheroids [Corynebacterium spp. not C. diphtheriae], Bacillus spp. [not B. anthracis], Propionibacterium spp., coagulase-negative staphylococci [including S. epidermidis], viridans group streptococci, Aerococcus spp., Micrococcus spp.) is cultured from two or more blood cultures drawn on the same or consecutive days and separate occasions. Criterion elements must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. (NOTE: The matching common commensals represent a single element; therefore, the collection date of the first common commensal is the date of the element.)
- MBI-LCBI Criterion1: Patient of any age meets criterion 1 for LCBI with at least one blood culture growing any of the following intestinal organisms with no other organisms isolated: Bacteroides spp., Candida spp., Clostridium spp., Enterococcus spp., Fusobacterium spp., Peptostreptococcus spp., Prevotella spp., Veillonella spp., or Enterobacteriaceae* AND patient meets at least one of the following (a or b):

a)Is an allogeneic hematopoietic stem cell transplant recipient within the past year with one of the following documented during same hospitalization as positive blood culture:

i.) Grade III or IV gastrointestinal graft versus host disease [GI GVHD]

ii.)1 liter or more diarrhea in a 24-hour period (or 20 or more mL/kg in a 24-hour period for patients <18 years of age) with onset on or within 7 calendar days before the date the positive blood culture was collected.

b)Is neutropenic, defined as at least 2 separate days with values of absolute neutrophil count (ANC) or total white blood cell count (WBC) <500 cells/mm3 within a seven-day time period which includes the date the positive blood culture was collected (Day 1), the 3 calendar days before and the 3 calendar days after.

- MBI-LCBI Criterion 2: Patient of any age meets criterion 2 for LCBI when the blood cultures are growing only viridans group streptococci with no other organisms isolated AND patient meets at least one of the following (a or b):

a)Is an allogeneic hematopoietic stem cell transplant recipient within the past year with one of the following documented during same hospitalization as positive blood culture:

i.)Grade III or IV gastrointestinal graft versus host disease [GI GVHD]

ii.)1 liter or more diarrhea in a 24-hour period (or 20 or more mL/kg in a 24-hour period for patients <18 years of age) with onset on or within 7 calendar days before the date the first positive blood culture was collected.

b)Is neutropenic, defined as at least 2 separate days with values of absolute neutrophil count (ANC) or total white blood cell count (WBC) <500 cells/mm3 within a seven-day time period which includes the date the positive blood culture was collected (Day 1), the 3 calendar days before and the 3 calendar days after.

	0139 National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure
	• MBI-LCBI Criterion 3: Patient 1 year of age or less meets criterion 3 for LCBI when the blood cultures are growing only viridans group streptococci with no other organisms isolated AND patient meets at least one of the following (a or b): a)Is an allogeneic hematopoietic stem cell transplant recipient within the past year with one of the following documented during same hospitalization as positive blood culture: i.) Grade III or IV gastrointestinal graft versus host disease [GI GVHD] ii.)20 mL or more/kg diarrhea in a 24-hour period with onset on or within 7 calendar days before the date the first positive blood culture is collected. b)Is neutropenic, defined as at least 2 separate days with values of absolute neutrophil count (ANC) or total white blood cell count (WBC) <500 cells/mm3 on or within a seven-day time period which includes the date the positive blood culture was collected (Day 1), the 3 calendar days before and the 3 calendar days after. 10. Definition of CDC Location: The patient care area to which a patient is assigned while receiving care in the healthcare facility. NOTE: Only locations where patients are housed overnight (i.e., inpatient locations) and where denominator data are collected can be used for reporting CLABSI data. Operating rooms (including cardiac cath labs, c-section rooms, and interventional radiology) and outpatient locations are not valid locations for this type of surveillance. See attached list of CDC/NHSN Location Types to identify Special Care Areas or Oncology Locations. 11. Definition of Adjacent Elements: "Adjacent" elements are elements of an infection criteria that occur in chronological order in the course of an infection. 12. Definition of Location of Attribution: The location to which the CLABSI is attributed. 13. Definition of Date of event: The date when the last element used to meet the LCBI criterion occurred. 14. Definition of birthweight: Birthweight is the weight of the infant at the time of birth and should not be changed as the infant gains weight. The birthweight categories are as follows: A = 750 g or less; B = 751-1000 g; C = 1001-1500 g; D = 1501-2500 g; E = >2500 g. 15. Definitions for facility physician education status: Teaching statuses: major, graduate, undergraduate - Major: Facility has a program for medical students and post-graduate medical training; Graduate: Facility has a program for post-graduate medical training (i.e., residency and/or fellowships); Undergraduate: Facility has a program for medical students only.
Denominator Statement	Total number of central line days for each location under surveillance for CLABSI during the data period.
Denominator Details	Methodologies for counting central line days differ according to the location of the patients being monitored. Numbers of central line days attributed to each location are counted for each data period utilizing the following definitions and guidelines. In locations that are not neonatal ICUs, SCA or oncology locations, all CL days for that location and data period are summed. For neonatal ICU central line days counts are stratified by birthweight category. CL day counts for Special Care Areas or Oncology Locations are stratified by temporary vs. permanent central line type. 1. Definition of central line day: For each patient, a day that at least one central line was present at the time of the CL day count.
Exclusions	1. Pacemaker wires and other non-lumened devices inserted into central blood vessels or the heart are excluded as CLs. 2. Extracoporeal membrane oxygenation lines, femoral arterial catheters, intraaortic

	balloon pump devices, and hemodialysis reliable outflow catheters (HeRO) are excluded as CLs. 3. Peripheral intravenous lines are excluded as CLs.
Exclusion details	See S.10
Risk Adjustment	Statistical risk model Standardized Infection Ratio (annual and quarter aggregation) The SIR is constructed by using an indirect standardization method for summarizing HAI experience across any number of stratified groups of data. CLABSI incidence rates stratified by patient care location type and in some instances, location bed size and type of medical school affiliation which form the basis of the population standardization. Example: predicted numbers of CLABSI (and CLABSI rates) in a medical ICU are not the same as in an NICU. See also Scientific Validity section for further information on risk adjustment and variables. Adjusted Ranking Metric (annual aggregation) The adjusted ranking metric (ARM) combines the method of indirect standardization with a Bayesian random effects hierarchical model to account for the potentially low precision and/or reliability inherent in the unadjusted SIR mentioned above. A Bayesian posterior distribution constructed through Monte Carlo Markov Chain sampling is used to produce the adjusted numerator. URL
Stratification	1. CLABSI data are stratified by facility-specific and individual patient location data (i.e., bedsize of location, affiliation and level of affiliation with physician education program [Teaching statuses: major, graduate, undergraduate, not affiliated - See definitions S.6. above 2. NICU CLABSI data are stratified by five birthweight categories (see S. 6. above. 3. CLABSI data for SCA/Oncology location central lines are stratified by two types, temporary and permanent. See definitions in S.6 above.
Type Score	Ratio better quality = lower score
Algorithm	Standardized Infection Ratio (annual and quarter aggregation) The SIR is calculated as follows: 1. Identify the number of CLABSI in each location 2. Total these numbers for an observed number of CLABSIs 3. Obtain the predicted number of CLABSIs in the same locations by multiplying the observed central line days by the corresponding CLABSI rates in specific location types from a standard population (i.e., see most recent NHSN Report at http://www.cdc.gov/nhsn/PDFs/dataStat/2009NHSNReport.PDF). 4. Sum the number of predicted CLABSIs from all locations in the annual period. 5. Divide the total number of observed CLABSI events (“2” above) by the “predicted” number of CLABSIs (“4” above). 6. Result = SIR (The NHSN analysis tool will perform the calculations once the patient infection data and denominator information are entered into the system.) Adjusted ranking metric annual aggregation) The ARM is calculated as follows: 1. Identify the number of CLABSI in each location 2. Obtain the adjusted number of observed CLABSIs by using a Bayesian posterior distribution

	0139 National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure
	constructed through Monte Carlo Markov Chain sampling which results from a Bayesian random effects model. 3. Total these numbers for an observed number of CLABSIs 4. Obtain the predicted number of CLABSIs in the same locations by multiplying the observed central line days according to the factors significantly associated with predicting CLABSI incidence as identified through a Log-linear Negative Binomial Regression Model. 6. Divide the total number of adjusted CLABSI events ("3" above) by the predicted number of CLABSIs ("5" above). 7. Result = ARM
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value:

	0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure
Status	Ad-Hoc Review Requested
Steward	Centers for Disease Control and Prevention
Description	Standardized Infection Ratio (SIR) of healthcare-associated, catheter-associated urinary tract infections (UTI) will be calculated among patients in bedded inpatient care locations, except level II or level III neonatal intensive care units (NICU. This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavior health hospitals.
Type	Outcome
Data Source	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Other, Paper Medical Records NHSN Urinary Tract Infection form; NHSN Denominators for Intensive Care Unit (ICU)/Other Locations (not NICU or SCA) form; NHSN Denominators for Specialty Care Areas/Oncology form. Available at measure-specific web page URL identified in S.1 Attachment NHSN_Data_Dictionary_7.2-635228834519586683.xlsx
Level	Facility, Population : National, Population : Regional, Population : State
Setting	Hospice, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility, Other Oncology hospital
Numerator Statement	Total number of observed healthcare-associated CAUTI among patients in bedded inpatient care locations (excluding patients in Level II or III neonatal ICUs).
Numerator Details	. Definition of Infection that is Present on Admission (POA): An infection where all of the elements of an infection definition are present during the two calendar days before the day of admission, the first day of admission (day 1) and/or the day after admission (day 2) and are documented in the medical chart. Infections that are POA should not be reported as healthcare-associated infections (HAI) and are not reported as CAUTI. Acceptable documentation does not include self-reported symptoms by the patient (e.g., patient reporting having a fever prior to arrival to the hospital). Instead, symptoms must be documented in the chart by a healthcare professional during the POA time frame (e.g., nursing home documents fever prior to arrival to the hospital). Physician diagnosis alone cannot be accepted as evidence of a urinary tract infection that is POA. NOTE: For POA, the temperature value does not need to be known to establish the presence of a fever. 2. Definition of Healthcare-associated Infection (HAI): Any infection reported to NHSN must meet the definition of an NHSN HAI, that is, a localized or systemic condition resulting from an adverse reaction to the presence of an infectious agent(s) or its toxin(s) that was not present on admission to the acute care facility. An infection is considered an HAI if all elements of a CDC/NHSN site-specific infection criterion were not present during the POA time period but were all present on or after the 3rd calendar day of admission to the facility (the day of hospital admission is calendar day 1). All elements used to meet the CDC/NHSN site-specific infection criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between any two adjacent elements. The definition of a gap day is a calendar day during which no infection criterion elements are present. If all elements of a CDC/NHSN site-specific infection criterion are present on the day of transfer or the next day from one inpatient location to another in the same facility or a new facility, the infection is attributed to the transferring location or facility. Likewise, if all elements of a CDC/NHSN site-specific infection criterion are present on the day of discharge or the next day, the infection is attributed to the discharging location. Clinical evidence may be derived from direct observation of the infection site or review of information in the patient chart or other clinical records.

	0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure
	2.Definition of CAUTI: A UTI (either a Symptomatic Urinary Tract Infection [SUTI], or an asymptomatic bacteremic urinary tract infection [ABUTI]) where an indwelling urinary catheter was in place for >2 calendar days on the date of event, with day of device placement being Day 1,AND an indwelling urinary catheter was in place on the date of event or the day before. If an indwelling urinary catheter was in place for > 2 calendar days and then removed, the UTI criteria must be fully met on the day of discontinuation or the next day to be catheter-associated. 3.Definition of indwelling catheter: A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a drainage bag (including leg bags). These devices are also called Foley catheters. Condom or straight in-and-out catheters are not included nor are nephrostomy tubes or suprapubic catheters unless a Foley catheter is also present. Indwelling urethral catheters that are used for intermittent or continuous irrigation are included in CAUTI surveillance. 4.UTI criteria meets either the Symptomatic Urinary Tract Infection, criteria or the Asymptomatic Bacteremic Urinary Tract Infection criteria: A Symptomatic Urinary Tract Infection (SUTI) that is catheter associated must meet at least 1 of A,) B), C), D), E), or F) below: A) Patient had an indwelling urinary catheter in place for >2 calendar days, with day of device placement being Day 1, and catheter was in place on the date of event AND at least 1 of the following signs or symptoms: fever (>38°C); suprapubic tenderness*; costovertebral angle pain or tenderness* AND a positive urine culture of =105 colony-forming units (CFU)/ml and with no more than 2 species of microorganisms. Elements of the criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. *With no other recognized cause B) Patient had an indwelling urinary catheter in place for >2 calendar days and had it removed the day of or the day before the date of event AND at least 1 of the following signs or symptoms: fever (>38°C); urgency*; frequency*; dysuria*; suprapubic tenderness*; costovertebral angle pain or tenderness* AND a positive urine culture of =105 colony-forming units (CFU)/ml and with no more than 2 species of microorganisms. Elements of the criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. *With no other recognized cause C) Patient had an indwelling urinary catheter in place for >2 calendar days, with day of device placement being Day 1, and catheter was in place on the date of event AND at least 1 of the following signs or symptoms: fever (>38°C); suprapubic tenderness*; costovertebral angle pain or tenderness* AND at least 1 of the following findings: i. positive dipstick for leukocyte esterase and/or nitrite ii. pyuria (urine specimen with =10 white blood cells [WBC]/mm3 of unspun urine or >5 WBC/high power field of spun urine) iii. microorganisms seen on Gram's stain of unspun urine AND a positive urine culture of =103 and <105 CFU/ml and with no more than 2 species of microorganisms. Elements of the criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. *With no other recognized cause

	0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure
	D) Patient with an indwelling urinary catheter in place for > 2 calendar days and had it removed the day of or the day before the date of event AND at least 1 of the following signs or symptoms: fever (>38°C); urgency*; frequency*; dysuria*; suprapubic tenderness*; costovertebral angle pain or tenderness* AND at least 1 of the following findings: i. positive dipstick for leukocyte esterase and/or nitrite ii. pyuria (urine specimen with =10 WBC/mm3 of unspun urine or >5 WBC/high power field of spun urine iii. microorganisms seen on Gram's stain of unspun urine AND a positive urine culture of =103 and <105 CFU/ml and with no more than 2 species of microorganisms. Elements of the criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. *With no other recognized cause E) Patient =1 year of age with or without** an indwelling urinary catheter has at least 1 of the following signs or symptoms: fever (>38°C core); hypothermia (<36°C core); apnea*; bradycardia*; dysuria*; lethargy*; vomiting* and a positive urine culture of =105 CFU/ml and with no more than 2 species of microorganisms. Elements of the criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. *With no other recognized cause ** Patient had an indwelling urinary catheter in place for >2 calendar days, with day of device placement being Day 1 and catheter was in place on the date of event or removed the day before. F) Patient =1 year of age with or without** an indwelling urinary catheter has at least 1 of the following signs or symptoms: fever (>38°C core); hypothermia (<36°C core); apnea*; bradycardia*; dysuria*; lethargy*; vomiting* and at least 1 of the following findings: a. positive dipstick for leukocyte esterase and/or nitrite b. pyuria (urine specimen with =10 WBC/mm3 of unspun urine or >5 WBC/high power field of spun urine c. microorganisms seen on Gram's stain of unspun urine and a positive urine culture of between =103 and <105 CFU/ml and with no more than two species of microorganisms. Elements of the criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. *With no other recognized cause ** Patient had an indwelling urinary catheter in place for >2 calendar days, with day of device placement being Day 1 and catheter was in place on the date of event or removed the day before. An Asymptomatic Bacteremic Urinary Tract Infection (ABUTI) that is catheter associated must meet the following: Patient with or without* an indwelling urinary catheter has no signs or symptoms (i.e., for any age patient, no fever (>38°C); urgency; frequency; dysuria; suprapubic tenderness; costovertebral angle pain or tenderness OR for a patient =1 year of age; no fever (>38°C core);

	0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure
	hypothermia (<36°C core); apnea; bradycardia; dysuria; lethargy; or vomiting) and a positive urine culture of =105 CFU/ml and with no more than 2 species of uropathogen microorganisms** (see Comments section below) and a positive blood culture with at least 1 matching uropathogen microorganism to the urine culture, or at least 2 matching blood cultures drawn on separate occasions if the matching pathogen is a common skin commensal. Elements of the criterion must occur within a timeframe that does not exceed a gap of 1 calendar day between two adjacent elements. *Patient had an indwelling urinary catheter in place for >2 calendar days, with day of device placement being Day 1, and catheter was in place on the date of event, or removed that day or the day before. **Uropathogen microorganisms are: Gram-negative bacilli, Staphylococcus spp., yeasts, beta-hemolytic Streptococcus spp., Enterococcus spp., G. vaginalis, Aerococcus urinae, and Corynebacterium (urease positive)+. 5. Definition of Adjacent Elements: "Adjacent" elements are elements of an infection criteria that occur in chronological order during the course of an infection. 6. Definition of Location of Attribution: The location to which the CAUTI is attributed. 7. Definition of Date of Event: The date when the last element used to meet the UTI criterion occurred. 8.Definitions for Facility Physician Education Status: Teaching statuses: major, graduate, undergraduate - Major: Facility has a program for medical students and post-graduate medical training; Graduate: Facility has a program for post-graduate medical training (i.e., residency and/or fellowships); Undergraduate: Facility has a program for medical students only.
Denominator Statement	Total number of indwelling urinary catheter days for each location under surveillance for CAUTI during the data period.
Denominator Details	Numbers of indwelling urinary catheter days attributed to each location are counted for each data period utilizing the following definitions and guidelines. All CL days for each location and data period are summed. 1. Definition of indwelling catheter day: For each patient, a day that an indwelling urinary catheter was present at the time of the CL day count
Exclusions	The following are not considered indwelling catheters by NHSN definitions: 1.Suprapubic catheters 2.Condom catheters 3.“In and out” catheterizations 4. Nephrostomy tubes Note, that if a patient has either a nephrostomy tube or a suprapubic catheter and also has an indwelling urinary catheter, the indwelling urinary catheter will be included in the CAUTI surveillance.
Exclusion details	See S. 10
Risk Adjustment	Stratification by risk category/subgroup Standardized Infection Ratio (annual and quarter aggregation) The SIR is constructed by using an indirect standardization method for summarizing HAI experience across any number of stratified groups of data. CAUTI incidence rates stratified by patient care location type and in some instances, location bed size and type of physician education affiliation which form the basis of the population standardization. Example:

	0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure
	predicted numbers of CAUTI (and CAUTI rates) in a medical ICU are not the same as in an NICU. See also Scientific Validity section for further information on risk adjustment and variables. Adjusted Ranking Metric (annual aggregation) The adjusted ranking metric (ARM) combines the method of indirect standardization with a Bayesian random effects hierarchical model to account for the potentially low precision and/or reliability inherent in the unadjusted SIR mentioned above. A Bayesian posterior distribution constructed through Monte Carlo Markov Chain sampling is used to produce the adjusted numerator. URL
Stratification	CAUTI data are stratified by facility-specific and individual patient location data (i.e., bedsize of location, affiliation and level of affiliation with a medical school [Teaching statuses: major, graduate, undergraduate, not affiliated - See definitions S.6. above.
Type Score	Ratio better quality = lower score
Algorithm	Standardized Infection Ratio (annual and quarter aggregation) The SIR is calculated as follows: 1. Identify the number of CAUTI in each location 2. Total these numbers for an observed number of CAUTIs 3. Obtain the predicted number of CAUTIs in the same locations by multiplying the observed indwelling urinary catheter days by the corresponding CAUTI rates in specific location types from a standard population (i.e., see most recent NHSN Report at Available at:http://www.sciencedirect.com/science/article/pii/S019665531301153X This report included device-associated infection data for 4444 facilities, for the year of 2012. 4. Sum the number of predicted CAUTIs from all locations in the annual period. 5. Divide the total number of observed CAUTI events (“2” above) by the “predicted” number of CAUTIs (“4” above). 6. Result = SIR (The NHSN analysis tool will perform the calculations once the patient infection data and denominator information are entered into the system.) Adjusted ranking metric annual aggregation) The ARM is calculated as follows: 1. Identify the number of CAUTI in each location 2. Obtain the adjusted number of observed CAUTIs by using a Bayesian posterior distribution constructed through Monte Carlo Markov Chain sampling which results from a Bayesian random effects model. 3. Total these numbers for an observed number of CAUTIs 4. Obtain the predicted number of CAUTIs in the same locations by multiplying the observed indwelling urinary catheter days according to the factors significantly associated with predicting CAUTI incidence as identified through a Log-linear Negative Binomial Regression Model. 6. Divide the total number of adjusted CAUTI events (“3” above) by the predicted number of CAUTIs (“4” above). 7. Result = ARM.
Copyright / Disclaimer	5.1 Identified measures:

	0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure
	5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value:

	0337 Pressure Ulcer Rate (PDI 2)
Steward	Agency for Healthcare Research and Quality
Description	Stage III or IV pressure ulcers (secondary diagnosis) per 1,000 discharges among patients ages 17 years and younger. Includes metrics for discharges grouped by risk category. Excludes neonates; stays less than five (5) days; transfers from another facility; obstetric discharges; cases with diseases of the skin, subcutaneous tissue and breast; discharges in which debridement or pedicle graft is the only operating room procedure; discharges with debridement or pedicle graft before or on the same day as the major operating room procedure; and those discharges in which pressure ulcer is the principal diagnosis or secondary diagnosis of Stage III or IV pressure ulcer is present on admission [NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report events per 1,000 hospital discharges.]
Type	Outcome
Data Source	Administrative claims While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM-coded administrative billing/claims/discharge dataset with Present on Admission (POA) information. Note that in the Version 5.0 (April 2015), the AHRQ QI software will no longer support prediction of POA status using an embedded prediction module. Users are expected to provide POA data. Available at measure-specific web page URL identified in S.1 Attachment PDI02_v5.0_150327.xlsx
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-9-CM diagnosis codes for pressure ulcer and any secondary ICD-9-CM diagnosis codes for pressure ulcer stage III or IV (or unstageable).
Numerator Details	ICD-9-CM Pressure ulcer diagnosis codes: 7070 DECUBITUS ULCER 70700 PRESSURE ULCER, SITE NOS 70701 PRESSURE ULCER, ELBOW 70702 PRESSURE ULCER, UPR BACK 70703 PRESSURE ULCER, LOW BACK 70704 PRESSURE ULCER, HIP 70705 PRESSURE ULCER, BUTTOCK 70706 PRESSURE ULCER, ANKLE 70707 PRESSURE ULCER, HEEL 70709 PRESSURE ULCER, SITE NEC ICD-9-CM Pressure ulcer stage diagnosis codes:

	0337 Pressure Ulcer Rate (PDI 2)
	70723 PRESSURE ULCER, STAGE III 70724 PRESSURE ULCER, STAGE IV 70725 PRESSURE ULCER, UNSTAGEBL
Denominator Statement	Surgical and medical discharges, for patients ages 17 years and younger. Surgical and medical discharges are defined by specific DRG or MS-DRG codes.
Denominator Details	See Pediatric Quality Indicators Appendices: • Appendix B – Surgical DRGs • Appendix C – Surgical MS-DRGs • Appendix D – Medical DRGs • Appendix E – Medical MS-DRGs Appendices are included in supplemental files and online at http://www.qualityindicators.ahrq.gov/Modules/PDI_TechSpec.aspx
Exclusions	Exclude cases: • with a principal ICD-9-CM diagnosis code for pressure ulcer (see above) • with any secondary ICD-9-CM diagnosis codes for pressure ulcer (see above) present on admission and any secondary ICD-9-CM diagnosis codes for pressure ulcer stage III or IV (or unstageable, see above) present on admission • with any-listed ICD-9-CM procedure codes for debridement or pedicle graft before or on the same day as the major operating room procedure (surgical cases only) • with any-listed ICD-9-CM procedure codes for debridement or pedicle graft as the only major operating room procedure (surgical cases only) • neonates • with length of stay of less than five (5) days • transfer from a hospital (different facility) • transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF) • transfer from another health care facility • MDC 9 (skin, subcutaneous tissue, and breast) • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing) See Pediatric Quality Indicators Appendices: • Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and Outborn • Appendix J – Admission Codes for Transfers Appendices are included in supplemental files and online at http://www.qualityindicators.ahrq.gov/Modules/PDI_TechSpec.aspx
Exclusion details	ICD-9-CM Debridement or pedicle graft procedure codes: 8345 OTHER MYECTOMY 8622 EXC WOUND DEBRIDEMENT

	0337 Pressure Ulcer Rate (PDI 2)
	8628 NONEXCIS DEBRIDEMENT WND 8670 PEDICLE GRAFT/FLAP NOS 8671 CUT & PREP PEDICLE GRAFT 8672 PEDICLE GRAFT ADVANCEMEN 8674 ATTACH PEDICLE GRAFT NEC 8675 REVISION OF PEDICLE GRFT
Risk Adjustment	Statistical risk model The predicted value for each case is computed using a hierarchical model (logistic regression with hospital random effect) and covariates for gender, age (in 5-year age groups), Modified MS-DRG (MDRG), MDC, transfer in, point of origin not available, procedure days not available and AHRQ comorbidty (COMORB). The expected rate is computed as the sum of the predicted value for each case divided by the number of cases for the unit of analysis of interest (i.e., hospital). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied by the reference population rate. The specific covariates for this measure are as follows: AGE 13 to 17 AGE 6 to 12 MDC 1 (Nervous System) RANDOM Uniform<=.5 RISK STRATA HIGH RISK Available in attached Excel or csv file at S.2b
Stratification	PDI02 stratifies by high-risk and low-risk groups. High Risk Category: Surgical and medical discharges, for patients ages 17 years and younger, with any-listed ICD-9-CM diagnosis codes for hemiplegia, paraplegia, or quadriplegia or any-listed ICD-9-CM diagnosis codes for spina bifida or any-listed ICD-9-CM diagnosis codes for anoxic brain damage or any-listed ICD-9-CM procedure codes for continuous mechanical ventilation. Surgical and medical discharges are defined by specific DRG or MS-DRG codes. See Pediatric Quality Indicators Appendices: • Appendix B – Surgical DRGs • Appendix C – Surgical MS-DRGs • Appendix D – Medical DRGs • Appendix E – Medical MS-DRGs ICD-9-CM Hemiplegia, paraplegia, or quadriplegia diagnosis codes: 33371 ATHETOID CEREBRAL PALSY 3341 HERED SPASTIC PARAPLEGIA 3420 FLACCID HEMIPLEGIA 34200 FLCCD HMIPLGA UNSPF SIDE 34201 FLCCD HMIPLGA DOMNT SIDE 34202 FLCCD HMIPLG NONDMNT SDE

	0337 Pressure Ulcer Rate (PDI 2)
	3421 SPASTIC HEMIPLEGIA
	34210 SPSTC HMIPLGA UNSPF SIDE
	34211 SPSTC HMIPLGA DOMNT SIDE
	34212 SPSTC HMIPLG NONDMNT SDE
	34280 OT SP HMIPLGA UNSPF SIDE
	34281 OT SP HMIPLGA DOMNT SIDE
	34282 OT SP HMIPLG NONDMNT SDE
	3429 HEMIPLEGIA, UNSPECIFIED
	34290 UNSP HEMIPLGA UNSPF SIDE
	34291 UNSP HEMIPLGA DOMNT SIDE
	34292 UNSP HMIPLGA NONDMNT SDE
	3430 INFANTILE CEREBRAL PALSY, DIPLEGIC
	3431 INFANTILE CEREBRAL PALSY, HEMIPLEGIC
	3432 INFANTILE CEREBRAL PALSY, QUADRIPLEGIC
	3433 INFANTILE CEREBRAL PALSY, MONOPLEGIC
	3434 INFANTILE CEREBRAL PALSY INFANTILE HEMIPLEGIA
	3438 INFANTILE CEREBRAL PALSY OTHER SPECIFIED INFANTILE CEREBRAL PALSY
	3439 INFANTILE CEREBRAL PALSY, INFANTILE CEREBRAL PALSY, UNSPECIFIED
	3440 QUADRIPLEGIA AND QUADRIPARESIS
	34400 QUADRIPLEGIA, UNSPECIFD
	34401 QUADRPLG C1-C4, COMPLETE
	34402 QUADRPLG C1-C4, INCOMPLT
	34403 QUADRPLG C5-C7, COMPLETE
	34404 QUADRPLG C5-C7, INCOMPLT
	34409 OTHER QUADRIPLEGIA
	3441 PARAPLEGIA
	3442 DIPLEGIA OF UPPER LIMBS
	34431 MONPLGA LWR LMB DMNT SDE
	34432 MNPLG LWR LMB NONDMNT SD
	3444 MONOPLEGIA OF UPPER LIMB
	34440 MONPLGA UPR LMB UNSP SDE
	34441 MONPLGA UPR LMB DMNT SDE
	34442 MNPLG UPR LMB NONDMNT SD
	3445 UNSPECIFIED MONOPLEGIA
	34460 CAUDA EQUINA SYNDROME, WITHOUT MENTION OF NEUROGENIC BLADDER
	34461 CAUDA EQUINA SYNDROME, WITH NEUROGENIC BLADDER
	3448 OTHER SPECIFIED PARALYTIC SYNDROMES
	3443 MONOPLEGIA OF LOWER LIMB
	34430 MONPLGA LWR LMB UNSP SDE

	0337 Pressure Ulcer Rate (PDI 2)
	34481 LOCKED-IN STATE 34489 OTH SPCF PARALYTIC SYND 3449 PARALYSIS, UNSPECIFIED 43820 LATE EF-HEMPLGA SIDE NOS 43821 LATE EF-HEMPLGA DOM SIDE 43822 LATE EF-HEMIPLGA NON-DOM 43830 LATE EF-MPLGA UP LMB NOS 43831 LATE EF-MPLGA UP LMB DOM 43832 LT EF-MPLGA UPLMB NONDOM 43840 LTE EF-MPLGA LOW LMB NOS 43841 LTE EF-MPLGA LOW LMB DOM 43842 LT EF-MPLGA LOWLMB NONDM 43850 LT EF OTH PARAL SIDE NOS 43851 LT EF OTH PARAL DOM SIDE 43852 LT EF OTH PARALS NON-DOM 43853 LT EF OTH PARALS-BILAT 7687 HYPOXIC-ISCHEMIC ENCEPH 76870 HYPOXC-ISCHEM ENCEPH NOS 76872 MOD HYPOX-ISCHEM ENCEPH 76873 SEV HYPOX-ISCHEM ENCEPH ICD-9-CM Spina bifida or anoxic brain damage diagnosis codes: 74100 SPIN BIF W HYDROCEPH NOS 74101 SPIN BIF W HYDRCEPH-CERV 74102 SPIN BIF W HYDRCEPH-DORS 74103 SPIN BIF W HYDRCEPH-LUMB 74190 SPINA BIFIDA 74191 SPINA BIFIDA-CERV 74192 SPINA VIFIDA-DORSAL 74193 SPINA BIFIDA-LUMBAR ICD-9-CM Anoxic brain damage diagnosis codes: 3481 ANOXIC BRAIN DAMAGE 7685 SEVERE BIRTH ASPHYXIA ICD-9-CM Continuous mechanical ventilation procedure code: 9672 CONT INV MEC VEN 96+ HRS Low Risk Category: Surgical and medical discharges, for patients ages 17 years and younger, without any-listed ICD-9-CM diagnosis codes for hemiplegia, paraplegia, or quadriplegia (see above) and without any-listed ICD-9-CM diagnosis codes for spina bifida (see above) and without any-listed ICD-9-CM diagnosis codes for anoxic brain damage (see above) and without any-listed ICD-9-CM

	0337 Pressure Ulcer Rate (PDI 2)
	procedure codes for continuous mechanical ventilation (see above). Surgical and medical discharges are defined by specific DRG or MS-DRG codes. See Pediatric Quality Indicators Appendices: • Appendix B – Surgical DRGs • Appendix C – Surgical MS-DRGs • Appendix D – Medical DRGs • Appendix E – Medical MS-DRGs
Type Score	Rate/proportion better quality = lower score
Algorithm	The observed rate is the number of discharge records where the patient experienced the QI adverse event divided by the number of discharge records at risk for the event. The expected rate is a comparative rate that incorporates information about a reference population that is not part of the user's input dataset – what rate would be observed if the expected level of care observed in the reference population and estimated with risk adjustment regression models, were applied to the mix of patients with demographic and comorbidity distributions observed in the user's dataset? The expected rate is calculated only for risk-adjusted indicators. The expected rate is estimated for each person using a generalized estimating equations (GEE) approach to account for correlation at the hospital or provider level. The risk-adjusted rate is a comparative rate that also incorporates information about a reference population that is not part of the input dataset – what rate would be observed if the level of care observed in the user's dataset were applied to a mix of patients with demographics and comorbidities distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user's input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user's dataset if the provider's rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the rate from the input dataset is unstable and based on noisy data. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed rate brings rates toward the mean, and does this more so for outliers (such as rural hospitals). For additional information, please see supporting information in the Quality Indicator Empirical Methods. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: Not applicable 5b.1 If competing, why superior or rationale for additive value: Not applicable

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)
Steward	Agency for Healthcare Research and Quality
Description	In-hospital deaths per 1,000 discharges for low mortality (< 0.5%) Diagnosis Related Groups (DRGs) among patients ages 18 years and older or obstetric patients. Excludes cases with trauma, cases with cancer, cases with an immunocompromised state, and transfers to an acute care facility.
Type	Outcome
Data Source	Administrative claims While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM-coded administrative billing/claims/discharge dataset with Present on Admission (POA) information. Note that in Version 5.0 (April 2015), the AHRQ QI software will no longer support prediction of POA status using an embedded prediction module. Users are expected to provide POA data. Available at measure-specific web page URL identified in S.1 Attachment PSI02_v5.0_Technical_Specifications_150402.xlsx
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
Numerator Details	Not applicable
Denominator Statement	Discharges, for patients ages 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), with a low-mortality (less than 0.5% mortality) MS-DRG code. If an MS-DRG is divided into "without/with (major) complications and comorbidities," both codes without complications/comorbidities and codes with (major) complications/comorbidities must have mortality rates below 0.5% in the reference population to qualify for inclusion.
Denominator Details	Low-mortality (less than 0.5%) MS DRG codes: 069 TRANSIENT ISCHEMIA 102 HEADACHES W MCC 103 HEADACHES W/O MCC 113 ORBITAL PROCEDURES W CC/MCC 114 ORBITAL PROCEDURES W/O CC/MCC 115 EXTRAOCULAR PROCEDURES EXCEPT ORBIT 121 ACUTE MAJOR EYE INFECTIONS W CC/MCC 122 ACUTE MAJOR EYE INFECTIONS W/O CC/MCC 123 NEUROLOGICAL EYE DISORDERS 137 MOUTH PROCEDURES W CC/MCC 138 MOUTH PROCEDURES W/O CC/MCC 139 SALIVARY GLAND PROCEDURES 149 DYSEQUILIBRIUM 202 BRONCHITIS & ASTHMA W CC/MCC 203 BRONCHITIS & ASTHMA W/O CC/MCC 311 ANGINA PECTORIS 312 SYNCOPE & COLLAPSE 313 CHEST PAIN

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)
	483 MAJOR JOINT & LIMB REATTACHMENT PROC OF UPPER EXTREMITY W CC/MCC
	484 MAJOR JOINT & LIMB REATTACHMENT PROC OF UPPER EXTREMITY W/O CC/MCC
	488 KNEE PROCEDURES W/O PDX OF INFECTION W CC/MCC
	489 KNEE PROCEDURES W/O PDX OF INFECTION W/O CC/MCC
	490 BACK & NECK PROC EXC SPINAL FUSION W CC/MCC OR DISC DEVICE/NEUROSTIM
	491 BACK & NECK PROC EXC SPINAL FUSION W/O CC/MCC
	506 MAJOR THUMB OR JOINT PROCEDURES
	509 ARTHROSCOPY
	513 HAND OR WRIST PROC, EXCEPT MAJOR THUMB OR JOINT PROC W CC/MCC
	514 HAND OR WRIST PROC, EXCEPT MAJOR THUMB OR JOINT PROC W/O CC/MCC
	582 MASTECTOMY FOR MALIGNANCY W CC/MCC
	583 MASTECTOMY FOR MALIGNANCY W/O CC/MCC
	600 NON-MALIGNANT BREAST DISORDERS W CC/MCC
	601 NON-MALIGNANT BREAST DISORDERS W/O CC/MCC
	691 URINARY STONES W ESW LITHOTRIPSY W CC/MCC
	692 URINARY STONES W ESW LITHOTRIPSY W/O CC/MCC
	697 URETHRAL STRICTURE
	707 MAJOR MALE PELVIC PROCEDURES W CC/MCC
	708 MAJOR MALE PELVIC PROCEDURES W/O CC/MCC
	742 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC/MCC
	743 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC/MCC
	746 VAGINA, CERVIX & VULVA PROCEDURES W CC/MCC
	747 VAGINA, CERVIX & VULVA PROCEDURES W/O CC/MCC
	748 FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES
	760 MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS W CC/MCC
	761 MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS W/O CC/MCC
	765 CESAREAN SECTION W CC/MCC
	766 CESAREAN SECTION W/O CC/MCC
	767 VAGINAL DELIVERY W STERILIZATION &/OR D&C
	768 VAGINAL DELIVERY W O.R. PROC EXCEPT STERIL &/OR D&C
	769 POSTPARTUM & POST ABORTION DIAGNOSES W O.R. PROCEDURE
	770 ABORTION W D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY
	774 VAGINAL DELIVERY W COMPLICATING DIAGNOSES
	775 VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES
	776 POSTPARTUM & POST ABORTION DIAGNOSES W/O O.R. PROCEDURE
	777 ECTOPIC PREGNANCY
	778 THREATENED ABORTION
	779 ABORTION W/O D&C
	780 FALSE LABOR
	781 OTHER ANTEPARTUM DIAGNOSES W MEDICAL COMPLICATIONS
	782 OTHER ANTEPARTUM DIAGNOSES W/O MEDICAL COMPLICATIONS
	864 FEVER
	876 O.R. PROCEDURE W PRINCIPAL DIAGNOSES OF MENTAL ILLNESS
	880 ACUTE ADJUSTMENT REACTION & PSYCHOSOCIAL DYSFUNCTION

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)
	881 DEPRESSIVE NEUROSES 882 NEUROSES EXCEPT DEPRESSIVE 883 DISORDERS OF PERSONALITY & IMPULSE CONTROL 885 PSYCHOSES 886 BEHAVIORAL & DEVELOPMENTAL DISORDERS 887 OTHER MENTAL DISORDER DIAGNOSES 894 ALCOHOL/DRUG ABUSE OR DEPENDENCE, LEFT AMA 895 ALCOHOL/DRUG ABUSE OR DEPENDENCE W REHABILITATION THERAPY 906 HAND PROCEDURES FOR INJURIES 945 REHABILITATION W CC/MCC 946 REHABILITATION W/O CC/MCC
Exclusions	Exclude cases: • with any-listed ICD-9-CM diagnosis codes for trauma • with any-listed ICD-9-CM diagnosis codes for cancer • with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM procedure codes for immunocompromised state • transfer to an acute care facility (DISP=2) • with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)
Exclusion details	See Patient Safety Indicators Appendices: • Appendix G – Trauma Diagnosis Codes • Appendix H – Cancer Diagnosis Codes • Appendix I – Immunocompromised State Diagnosis and Procedure Codes For appendices, see supplemental files or http://www.qualityindicators.ahrq.gov/Modules/PSI_TechSpec.aspx
Risk Adjustment	Statistical risk model The predicted value for each case is computed using a hierarchical model (logistic regression with hospital random effect) and covariates for gender, age (in 5-year age groups), Modified MS-DRG (MDRG), MDC, transfer in, point of origin not available, procedure days not available and AHRQ comorbidty (COMORB). The expected rate is computed as the sum of the predicted value for each case divided by the number of cases for the unit of analysis of interest (i.e., hospital). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied by the reference population rate. The specific covariates for this measure are as follows: SEX Female AGE 18 to 24 AGE 25 to 29 AGE 30 to 59 AGE 65 to 69 AGE 70 to 74 AGE 75 to 79 AGE 80 to 84 AGE 85+ MDRG 0413 Bronchitis & Asthma

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)
	MDRG 0533 Syncope & Collapse MDRG 1915 Psychoses MDRG 2019 Alcohol/Drug Abuse or Dependence MDC 0019 Mental Diseases & Disorders TRNSFER Transfer-in NOPRDAY Procedure Days Data Not Available COMORB Congestive heart failure COMORB Other neurological COMORB Chronic pulmonary disease COMORB Hypothyroidism COMORB Renal Failure COMORB Obesity COMORB Deficiency Anemias Available in attached Excel or csv file at S.2b
Stratification	Not applicable
Type Score	Rate/proportion better quality = lower score
Algorithm	The observed rate is the number of discharge records where the patient experienced the QI adverse event divided by the number of discharge records at risk for the event. The expected rate is a comparative rate that incorporates information about a reference population that is not part of the user's input dataset – what rate would be observed if the expected level of care observed in the reference population and estimated with risk adjustment regression models, were applied to the mix of patients with demographic and comorbidity distributions observed in the user's dataset? The expected rate is calculated only for risk-adjusted indicators. The expected rate is estimated for each person using a generalized estimating equations (GEE) approach to account for correlation at the hospital or provider level. The risk-adjusted rate is a comparative rate that also incorporates information about a reference population that is not part of the input dataset – what rate would be observed if the level of care observed in the user's dataset were applied to a mix of patients with demographics and comorbidities distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user's input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user's dataset if the provider's rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the rate from the input dataset is unstable and based on noisy data. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed rate brings rates toward the mean, and does this more so for outliers (such as rural hospitals). For additional information, please see supporting information in the Quality Indicator Empirical Methods. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: not applicable

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)
	5b.1 If competing, why superior or rationale for additive value: Not applicable

	0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)
Steward	Agency for Healthcare Research and Quality
Description	Accidental punctures or lacerations (secondary diagnosis) during a procedure of the abdomen or pelvis per 1,000 discharges for patients ages 18 years and older that require a second abdominopelvic operation one or more days after the index procedure. Excludes cases with accidental puncture or laceration as a principal diagnosis, cases with accidental puncture or laceration as a secondary diagnosis that is present on admission and obstetric cases.
Type	Outcome
Data Source	Administrative claims While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM-coded administrative billing/claims/discharge dataset with Present on Admission (POA) information. Note that in the forthcoming Version 5.0 (expected release Quarter 1 of 2015), the AHRQ QI software will no longer support prediction of POA status using an embedded prediction module. Users are expected to provide POA data. No data collection instrument provided Attachment PSI15_Technical_Specifications_150508-635701429553261470-635701437831070546.xlsx
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-9-CM diagnosis codes for accidental puncture or laceration during a procedure and second abdominopelvic operation 1 day or more after an index abdominopelvic operation.
Numerator Details	ICD-9-CM Accidental puncture or laceration during a procedure diagnosis code: 9982 ACCIDENTAL PUNCTURE OR LACERATION DURING A PROCEDURE
Denominator Statement	Patients ages 18 years and older with any procedure code for an abdominopelvic procedure.
Denominator Details	See attached excel file for diagnosis codes for the following denominator elements: Abdominopelvic surgery procedure codes
Exclusions	Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for accidental puncture or laceration during a procedure • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)
Exclusion details	ICD-9-CM Accidental puncture or laceration during a procedure diagnosis code: 9982 ACCIDENTAL PUNCTURE OR LACERATION DURING A PROCEDURE
Risk Adjustment	Statistical risk model The predicted value for each case is computed using a hierarchical model (logistic regression with hospital random effect) and covariates for gender, age (in 5-year age groups), Modified MS-DRG (MDRG), MDC, transfer in, point of origin not available, procedure days not available and AHRQ comorbidity (COMORB). The expected rate is computed as the sum of the predicted value for each case divided by the number of cases for the unit of analysis of interest (i.e., hospital). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied by the reference population rate. The specific covariates for this measure are as follows: SEX Female

	0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)
	AGE 18 to 24 AGE 25 to 29 AGE 30 to 59 MDRG 0101 INTRACRANIAL VASCULAR PROCEDURES W PDX HEMORRHAGE MDRG 0103 CRANIOTOMY MDRG 0107 EXTRACRANIAL PROCEDURES W CC MDRG 0302 CLEFT LIP & PALATE REPAIR MDRG 0401 MAJOR CHEST PROCEDURES MDRG 0402 OTHER RESP SYSTEM O.R. PROCEDURES MDRG 0416 RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT MDRG 0502 PERCUTANEOUS CARDIOVASCULAR PROC W MAJOR CV DX MDRG 0503 CARDIAC VALVE & OTHER MAJOR CARDIOTHORACIC PROC MDRG 0504 CARDIAC DEFIBRILLATOR IMPLANT MDRG 0505 OTHER CARDIOTHORACIC PROCEDURES MDRG 0506 CORONARY BYPASS W PTCA MDRG 0507 CORONARY BYPASS MDRG 0508 MAJOR CARDIOVASCULAR PROCEDURES MDRG 0510 PERMANENT CARDIAC PACEMAKER IMPL MDRG 0511 PERCUTANEOUS CARDIOVASCULAR PROC W DRUG-ELUTING STENT W MAJOR CV DX MDRG 0513 PERCUTANEOUS CARDIOVASC PROC W/O CORONARY ARTERY STENT OR AMI MDRG 0514 OTHER VASCULAR PROCEDURES MDRG 0519 OTHER CIRCULATORY SYSTEM O.R. PROCEDURES MDRG 0520 CIRCULATORY DISORDERS MDRG 0522 CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH MDRG 0601 STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES MDRG 0602 MAJOR SMALL & LARGE BOWEL PROCEDURES MDRG 0603 RECTAL RESECTION MDRG 0604 PERITONEAL ADHESIOLYSIS MDRG 0606 APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG MDRG 0609 INGUINAL & FEMORAL HERNIA PROCEDURES MDRG 0610 HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL MDRG 0611 OTHER DIGESTIVE SYSTEM O.R. PROCEDURES MDRG 0621 OTHER DIGESTIVE SYSTEM DIAGNOSES MDRG 0701 PANCREAS, LIVER & SHUNT PROCEDURES MDRG 0702 BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E MDRG 0703 CHOLECYSTECTOMY W C.D.E. MDRG 0704 CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. MDRG 0705 LAPAROSCOPIC CHOLECYSTECTOMY MDRG 0712 DISORDERS OF THE BILIARY TRACT MDRG 0806 REVISION OF HIP OR KNEE REPLACEMENT MDRG 0807 MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY MDRG 0815 BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W CC MDRG 0816 LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR

	0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)
	MDRG 1101 KIDNEY TRANSPLANT MDRG 1003 O.R. PROCEDURES FOR OBESITY MDRG 1005 PARATHYROID PROCEDURES MDRG 1006 OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC MDRG 1101 KIDNEY TRANSPLANT MDRG 1102 AMPUTAT OF LOWER LIMB FOR ENDOCRINE,NUTRIT,& METABOL DISORDERS MDRG 1103 KIDNEY AND URETER PROCEDURES FOR NEOPLASM MDRG 1104 KIDNEY AND URETER PROCEDURES FOR NON-NEOPLASM MDRG 1105 MINOR BLADDER PROCEDURES MDRG 1107 TRANSURETHRAL PROCEDURES MDRG 1109 OTHER KIDNEY & URINARY TRACT PROCEDURES MDRG 1201 MAJOR MALE PELVIC PROCEDURES MDRG 1204 TRANSURETHRAL PROSTATECTOMY MDRG 1301 PELVIC EVISCERATION, RADICAL HYSTERECTOMY & RADICAL VULVECTOMY MDRG 1302 UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY MDRG 1303 UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG MDRG 1304 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY MDRG 1305 LAPAROSCOPY & INCISIONAL TUBAL INTERRUPTION MDRG 1306 VAGINA, CERVIX & VULVA PROCEDURES MDRG 1307 FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES MDRG 1308 OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES MDRG 1707 LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE MDRG 1709 MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R.PROC MDRG 1801 INFECTIOUS & PARASITIC DISEASES W O.R. PROCEDURE MDRG 1802 POSTOPERATIVE OR POST-TRAUMATIC INFECTIONS W O.R. PROCEDURE MDRG 2104 OTHER O.R. PROCEDURES FOR INJURIES MDRG 2108 COMPLICATIONS OF TREATMENT MDRG 2408 OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA MDRG 7702 LIVER TRANSPLANT AND/OR INTESTINAL TRANSPLANT MDC 0001 NERVOUS SYSTEM, DISEASES & DISORDERS MDC 0003 EAR, NOSE, MOUTH, & THROAT, DISEASES & DISORDERS MDC 0004 RESPIRATORY SYSTEM, DISEASES & DISORDERS MDC 0005 CIRCULATORY SYSTEM, DISEASES & DISORDERS MDC 0006 DIGESTIVE SYSTEM, DISEASES & DISORDERS MDC 0007 HEPATOBILIARY SYSTEM & PANCREAS, DISEASES & DISORDERS MDC 0008 MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE, DISEASES & DISORDERS MDC 0009 SKIN, SUBCUTANEOUS TISSUE & BREAST, DISEASES & DISORDERS MDC 0010 ENDOCRINE, NUTRITIONAL, AND METABOLIC, DISEASES & DISORDERS MDC 0011 KIDNEY AND URINARY TRACT, DISEASES & DISORDERS MDC 0012 MALE REPRODUCTIVE SYSTEM, DISEASES & DISORDERS MDC 0013 FEMALE REPRODUCTIVE SYSTEM, DISEASES & DISORDERS MDC 0017 MYELOPROLIFERATIVE DISEASES & POORLY DIFFERENTIATED NEOPLASMS MDC 0018 INFECTIOUS & PARASITIC DISEASES MDC 0021 INJURIES, POISONINGS, AND TOXIC EFFECTS OF DRUGS

	0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)
	MDC 0024 MULTIPLE SIGNFICANT TRAUMA TRNSFER TRANSFER-IN NOPRDAY PROCEDURE DAYS DATA NOT AVAILABLE COMORB PERIPHERAL VASCULAR COMORB DIABETES W/O CHRONIC COMPLICATIONS COMORB DIABETES W/ CHRONIC COMPLICATIONS COMORB RENAL FAILURE COMORB OBESITY COMORB WEIGHT LOSS Available in attached Excel or csv file at S.2b
Stratification	Not applicable
Type Score	Rate/proportion better quality = lower score
Algorithm	The observed rate is the number of discharge records where the patient experienced the QI adverse event divided by the number of discharge records at risk for the event. The expected rate is a comparative rate that incorporates information about a reference population that is not part of the user's input dataset – what rate would be observed if the expected level of care observed in the reference population and estimated with risk adjustment regression models, were applied to the mix of patients with demographic and comorbidity distributions observed in the user's dataset? The expected rate is calculated only for risk-adjusted indicators. The expected rate is estimated for each person using a generalized estimating equations (GEE) approach to account for correlation at the hospital or provider level. The risk-adjusted rate is a comparative rate that also incorporates information about a reference population that is not part of the input dataset – what rate would be observed if the level of care observed in the user's dataset were applied to a mix of patients with demographics and comorbidities distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user's input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user's dataset if the provider's rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the variance of the estimated rate from the input dataset is large compared with the hospital-to-hospital variance estimated from the reference population. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed rate brings rates toward the mean, and tends to do this more so for outliers (such as rural hospitals). For additional information, please see supporting information in the Quality Indicator Empirical Methods. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: Not applicable

	0419 Documentation of Current Medications in the Medical Record
Steward	Centers for Medicare & Medicaid Services
Description	Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration
Type	Process
Data Source	Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry The data source is the medical record, which provides patient information for the encounter; Medicare Part B Claims and Registry data, and EHR reports. No data collection instrument provided Attachment NQF_0419_PQRS_130_CMS68__Code_Table_S2.b.xlsx
Level	Clinician : Group/Practice, Clinician : Individual
Setting	Ambulatory Care : Clinician Office/Clinic
Numerator Statement	The Numerator statement for the most recent versions of the measure is as follows (for both the 2015 Claims and Registry version and the 2014 e Measure version): Eligible professional attests to documenting, updating, or reviewing patient´s current medications using all immediate resources available on the date of the encounter. This list must include ALL prescriptions, over-the counters, herbals, vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency, and route
Numerator Details	For Claims and Registry, G-codes are defined as Quality Date Codes (QDCs), which are subset of HCPCs II codes. QDCs are non-billable codes that providers will use to delineate their clinical quality actions, which are submitted with Medicare Part B Claims. There are three different G-code options for NQF measure #0419. Within the e measure specification, value sets contain a SNOMEDCT code to indicate clinical quality action. Specifically, the value set "Current Medications Documented SNMD" satisfies the numerator in the EHR (See attached code table for S2.b) Numerator Quality-Data Coding Options for Reporting Claims and Registry Satisfactorily: Current Medications Documented G8427: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient's current medications OR Current Medications not Documented, Patient not Eligible G8430: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional OR Current Medications with Name, Dosage, Frequency, Route not Documented, Reason not Given G8428: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given. Reporting the Numerator within the e Measure Satisfactorily: Numerator = AND: "Procedure, Performed: Current Medications Documented SNMD" during "Occurrence A of Encounter, Performed: Medications Encounter Code Set" Value Sets used include: Current Medications Documented SNMD

	0419 Documentation of Current Medications in the Medical Record
	Medications Encounter Code Set Definitions included in relation to the Numerator include the following in the Claims and Registry version as well as the e Measure specification: Current Medications - Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication's name, dosage, frequency and administered route. Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical)
Denominator Statement	2015 Claims and Registry Denominator statement: All visits for patients aged 18 years and older 2014 e Measure Denominator statement: Equals the Initial Patient Population (IPP) The IPP is defined as, "All visits occurring during the 12 month reporting period for patients aged 18 years and older before the start of the measurement period"
Denominator Details	For the purposes of defining the denominator in both the Claims and Registry and e Measure versions, the denominator is defined by the patient´s age, encounter date, denominator CPT or HCPCS codes, and the provider reported numerator. In the Claims and Registry version, HCPCS codes described below (G8427, G8430 & G8428) and CPT codes and patient demographics are used to identify visits that are included in the measure's denominator. Patients aged >= 18 years on date of encounter AND Patient encounter during the reporting period (CPT or HCPCS): 90791, 90792, 90832, 90834, 90837, 90839, 90957, 90958, 90959, 90960, 90962, 90965, 90966, 92002, 92004, 92012, 92014, 92507, 92508, 92526, 92541, 92542, 92543, 92544, 92545, 92547, 92548, 92557, 92567, 92568, 92570, 92585, 92588, 92626, 96116, 96150, 96151, 96152, 97001, 97002, 97003, 97004, 97532, 97802, 97803, 97804, 98960, 98961, 98962, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99221, 99222, 99223, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99495, 99496, G0101, G0108, G0270, G0402, G0438, G0439 Within the e Measure version the denominator is defined as the IPP "Patient Characteristic Birthdate: birth date" >= 18 year(s) starts before start of "Measurement Period" AND: "Occurrence A of Encounter, Performed: Medications Encounter Code Set" during "Measurement Period" The e Measure includes the above CPT and HCPCs codes as well as SNOMEDCT codes in the Medications Encounter Code Value Set OID: 2.16.840.1.113883.3.600.1.1834 and captures date of birth with OID: 2.16.840.1.113883.3.560.100.4, birth date value set.
Exclusions	A patient is not eligible or excluded from the denominator in both Claims and Registry and e Measure specifications if the following reason exists: Medical Reason: Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.
Exclusion details	For the purposes of identifying exclusions, denominator exclusions are defined by providers reporting the exclusion clinical quality action. For this measure, the clinical exclusion code in the Claims and Registry version is HCPCS G8430. Current Medications not Documented, Patient not Eligible G8430: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional Within the e Measure, this exclusion is identified with a value set "Medical or Other reason

	0419 Documentation of Current Medications in the Medical Record
	not done" OID 2.16.840.1.113883.3.600.1.1502
Risk Adjustment	No risk adjustment or risk stratification N/A
Stratification	This measure is not stratified. All eligible patients are subject to the same numerator criteria.
Type Score	Rate/proportion better quality = higher score
Algorithm	This section provides details and formulas to calculate Performance. PERFORMANCE CALCULATION To calculate provider performance, complete a fraction with the following measure components: Numerator (A), Performance Denominator (PD) and Denominator Exclusions (B). Numerator (A): Number of visits meeting numerator criteria Performance Denominator (PD): Number of visits meeting criteria for denominator inclusion Denominator Exclusions (B): Number of visits with valid exclusions The method of performance calculation is determined by the following: 1) identify the visits that meet the eligibility criteria for the denominator (PD) which includes patients who are 18 years and older with appropriate encounters as defined by encounter codes or encounter value set during the reporting period. 2) identify which of those visits that meet the numerator criteria (A) 3) for those visits who do not meet the numerator criteria, determine whether an appropriate exclusion applies (B) and subtract those visits from the denominator with the following calculation: Numerator (A)/[Performance Denominator (PD) - Denominator Exclusions (B)] Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 0097 : Medication Reconciliation Post-Discharge 0553 : Care for Older Adults (COA) – Medication Review 0554 : Medication Reconciliation Post-Discharge (MRP) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: NQF 0553 is the most similar conceptually to NQF 0419. NQF 0553 is a process measure that focuses solely on the elderly population (namely, those 66 years and older) and requires evidence of at least one medication review during the entire measurement year. Our measure (NQF 0419) encompasses a larger population (all adults 18 years of age and older) and requires a medication review at every encounter. Unlike NQF 0419, there is no e Measure available for NQF 0553. Although completing and documenting a medication review at every visit is more burdensome on physician practices, NQF 0419 provides more rigorous assessment of quality of care, as more frequent medication reviews allows for more rapid identification of medication discrepancies and is more likely to prevent adverse drug events. NQF 0554 is a process measure focused on the elderly population (namely, those 66 years and older) that requires medication reconciliation within 30 days for patients discharged from the hospital. NQF 0419 is different from this measure in the following ways: (1) the population focus for NQF 0419 is inclusive of all patients 18 years and older, not just those 66 years and older discharged from an inpatient setting; (2) the medication list to be reviewed and documented at each visit for NQF 0419, not just a single visit within 30 days after a patient's discharge; and (3) NQF 0419 focuses on updating the patients medication list from any source and is not limited to the specific process of medication reconciliation. In addition, NQF 0554 does not include an e Measure version. Although completing and documenting a medication review at every visit is more burdensome on physician practices, NQF 0419 provides more

	0419 Documentation of Current Medications in the Medical Record
	rigorous assessment of quality of care, as more frequent medication reviews allows for more rapid identification of medication discrepancies and is more likely to prevent adverse drug events. NQF 0097 is a process measure that reflects follow-up care following discharge from an inpatient setting for patients aged 18 years and older (performance is stratified into two age groups: patients 18-65 and patients 65 and older) who are discharged from any inpatient facility. This measure requires that medication reconciliation be conducted if the patient is seen within 30 days of discharge following an inpatient hospitalization. NQF 0097 is only reported if a patient receives follow-up care within 30 days following discharge from any inpatient setting. NQF 0419 is different from this measure in the following ways: (1) the population of focus for NQF 0419 is inclusive of all patients 18 years and older, not just those discharged from an inpatient setting; (2) the medication list to be reviewed and documented at each visit for NQF 0419, not just a single visit within 30 days after a patient's discharge; and (3) NQF 0419 focuses on updating the patients medication list from any source and is not limited to the specific process of medication reconciliation. In addition, NQF 0419 is appropriate for reporting by any EP and must be reported for every eligible encounter. Lastly, NQF 0097 does not include an e Measure version. Although completing and documenting a medication review at every visit is more burdensome on physician practices, NQF 0419 provides more rigorous assessment of quality of care, as more frequent medication reviews allows for more rapid identification of medication discrepancies and is more likely to prevent adverse drug events. 5b.1 If competing, why superior or rationale for additive value: N/A

	National Healthcare Safety Network (NHSN) Antimicrobial Use Measure
Steward	Centers for Disease Control and Prevention
Description	This measure assesses antimicrobial use in hospitals based on medication administration data that hospitals collect electronically at the point of care and report via electronic file submissions to CDC's National Healthcare Safety Network (NHSN). The antimicrobial use data that are in scope for this measure are antibacterial agents administered to adult and pediatric patients in a specified set of ward and intensive care unit locations: medical, medical/surgical, and surgical wards and units. The measure compares antimicrobial use that the hospitals report with antimicrobial use that is predicted on the basis of nationally aggregated data. The measure is comprised of a discrete set of ratios, Standardized Antimicrobial Administration Ratios (SAARs), each of which summarizes observed-to-predicted antibacterial use for one of 16 antibacterial agent-patient care location combinations. The SAARs are designed to serve as high value targets or high level indicators for antimicrobial stewardship programs (ASPs). SAAR values that are outliers are intended to prompt analysis of possible overuse, underuse, or inappropriate use of antimicrobials, subsequent actions aimed at improving the quality of antimicrobial prescribing, and impact evaluations of ASP interventions.
Type	Process
Data Source	Electronic Clinical Data : Electronic Health Record, Management Data Available at measure-specific web page URL identified in S.1 Attachment NHSN_Antimicrobial_Use_Measure_Proposal_-_S.15._Detailed_risk_model_specifications-635641102276651436.xlsx
Level	Facility
Setting	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital
Numerator Statement	Days of antimicrobial therapy for antibacterial agents administered to adult and pediatric patients in medical, medical/surgical, and surgical wards and medical, medical/surgical, and surgical intensive care units.
Numerator Details	An antimicrobial day (also known as a day of therapy) is defined by any amount of a specific antimicrobial agent administered in a calendar day to a particular patient as documented in an electronic medication administration record (eMAR) and/or bar coding medication record (BCMA). All antimicrobial days for specified categories of antibacterial agents administered in specified patient care locations—adult and pediatric medical, medical/surgical, and surgical wards and adult and pediatric medical, medical/surgical, and surgical intensive care units—are summed for each location and comprise the numerator data for the measure. The specified categories of antibacterial agents are: 1) Broad spectrum agents predominantly used for hospital-onset/multi-drug resistant infections, 2) Broad spectrum agents predominantly used for community-acquired infections, 3) Anti-MRSA agents, 4) Agents used predominantly for surgical site infection prophylaxis, and 5) All agents. See attached Table 1. NHSN Antimicrobial Use Measure proposal for lists and descriptions of patient care locations and antibacterial agent categories
Denominator Statement	Days present for each patient care location—adult and pediatric medical, medical/surgical, and surgical wards and adult and pediatric medical, medical/surgical, and surgical intensive care units—is defined as the number of patients who were present for any portion of each day of a calendar month for each location. The day of admission, discharge, and transfer to and from locations are included in days present. All days present are summed for each location and month, and the aggregate sums for each location-month combination comprise the denominator data for the measure.
Denominator Details	See attached Table 1. NHSN Antimicrobial Use Measure proposal for list and description of patient care locations included in the measure.

	National Healthcare Safety Network (NHSN) Antimicrobial Use Measure
Exclusions	Hospital patient care locations other than adult and pediatric medical, medical/surgical, and surgical wards and adult and pediatric medical, medical/surgical, and surgical intensive care units are excluded from this measure.
Exclusion details	See Table 1. NHSN Antimicrobial Use Measure Proposal for description of patient care locations. Listed locations are included in the measure; all other locations are excluded.
Risk Adjustment	Statistical risk model Negative binomial regression modeling to find factors associated with differences in antimicrobial use rates and regression models to predict days of therapy that can be compared to observed days of therapy. Variables available and considered in modeling: hospital teaching status, hospital ICU status, hospital bedsize, hospital ICU bedsize, and patient care location bedsize for adult and pediatric ICU and ward locations. Available in attached Excel or csv file at S.2b
Stratification	Antimicrobial use data are stratified by hospital-specific and patient care location-specific variables: hospital teaching status (major [medical school and post-graduate training], graduate only [residents and/or fellows], undergraduate only [medical students], not a teaching hospital); hospital bedsize; hospital ICU status (presence or absence of ICU beds); hospital ICU bedsize; patient care location bedsize for adult and pediatric medical, medical/surgical, surgical intensive care units and adult and pediatric medical, medical/surgical, surgical wards.
Type Score	Ratio
Algorithm	The Standardized Antimicrobial Administration Ratio (SAAR), the ratio of observed to predicted antimicrobial use, is a score that can be above, equal to, or below 1.0. A high score (above 1.0) that achieves statistical significance may indicate excessive antimicrobial use. A score that is not significantly different than 1.0 indicates antimicrobial use that is equivalent to the referent population's antimicrobial use. A low score (below 1.0) that achieves statistical significance may indicate antimicrobial under use. Each SAAR is calculated as follows: 1. Identify the antimicrobial days reported for each patient care location included in the SAAR for the measurement period 2. Total each of these numbers for an observed number of antimicrobial days 3. Obtain the predicted antimicrobial days in the same patient care locations by multiplying the observed days present by the corresponding antimicrobial use rate in the standard population obtained from the relevant regression model 4.Sum the predicted antimicrobial days for the patient care locations included in the SAAR 5. Divide the total number of antimicrobial days by the predicted number of antimicrobial days 6. Result = SAAR A discrete set of SAARs comprise the antimicrobial use measure: SAARs that are intended to serve as high value targets for antimicrobial stewardship programs and SAARs that are intended to serve as high level indicators of all antimicrobial use across multiple patient care locations. High value targets – SAARs for 14 different antibacterial agent-patient care location combinations Adult 1. Broad spectrum antibacterial agents predominantly used for hospital-onset/multi-drug resistant infections – adult medical, medical/surgical, and surgical intensive care units 2. Broad spectrum antibacterial agents predominantly used for hospital-onset/multi-drug resistant infections – adult medical, medical/surgical, and surgical wards

	National Healthcare Safety Network (NHSN) Antimicrobial Use Measure
	3. Broad spectrum antibacterial agents predominantly used for community-acquired infections – adult medical, medical/surgical, and surgical intensive care units 4. Broad spectrum antibacterial agents predominantly used for community-acquired infections – adult medical, medical/surgical, and surgical intensive care wards 5. Anti-MRSA-antibacterial agents – adult medical, medical/surgical, and surgical intensive care units 6. Anti-MRSA-antibacterial agents – adult medical, medical/surgical, and surgical wards 7. Antibacterial agents predominantly used for surgical site infection prophylaxis – all adult medical, medical/surgical, and surgical locations (intensive care units and wards) Pediatric 1. Broad spectrum antibacterial agents predominantly used for hospital-onset/multi-drug resistant infections – pediatric medical, medical/surgical, and surgical intensive care units 2. Broad spectrum antibacterial agents predominantly used for hospital-onset/multi-drug resistant infections – pediatric medical, medical/surgical, and surgical wards 3. Broad spectrum antibacterial agents predominantly used for community-acquired infections – pediatric medical, medical/surgical, and surgical intensive care units 4. Broad spectrum antibacterial agents predominantly used for community-acquired infections – pediatric medical, medical/surgical, and surgical intensive care wards 5. Anti-MRSA-antibacterial agents – pediatric medical, medical/surgical, and surgical intensive care units 6. Anti-MRSA-antibacterial agents – pediatric medical, medical/surgical, and surgical wards 7. Antibacterial agents predominantly used for surgical site infection prophylaxis – all pediatric medical, medical/surgical, and surgical locations (intensive care units and wards) High level indicators – SAARs for 2 different antibacterial agent-patient care location combinations Adult 1. All antibacterial agents – all adult medical, medical/surgical, and surgical locations (intensive care units and wards) Pediatric 1. All antibacterial agents – all pediatric medical, medical/surgical, and surgical locations (intensive care units and wards) Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value:

	0674 Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)
Steward	Centers for Medicare & Medicaid Services
Description	This measure reports the percentage of residents who have experienced one or more falls with major injury during their episode of nursing home care ending in the target quarter (3-month period). Major injury is defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma. The measure is based on MDS 3.0 item J1900C, which indicates whether any falls that occurred were associated with major injury. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care.
Type	Outcome
Data Source	Electronic Clinical Data Nursing Home Minimum Data Set 3.0 Available in attached appendix at A.1 No data dictionary
Level	Facility
Setting	Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility
Numerator Statement	The numerator is the number of long-stay nursing home residents who experienced one or more falls that resulted in major injury (J1900C = 1 or 2) on one or more look-back scan assessments during their episode ending in the target quarter (assessments may be OBRA, PPS or discharge). In the MDS 3.0, major injury is defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma.
Numerator Details	Residents are counted if they are long-stay residents, defined as residents whose length of stay is 101 days or more. Residents who return to the nursing home following a hospital discharge will not have their stay within the episode of care reset to zero. Residents are counted in the numerator if they have one or more look-back scan assessments that indicate one or more falls that resulted in major injury (J1900C = [1, 2]) on any qualifying assessment in a resident's episode ending during the target quarter. Qualifying assessments may be an OBRA admission, quarterly, annual or significant change/correction assessments (A0310A = 01, 02, 03, 04, 05, 06) or PPS 5-, 14-, 30-, 60-, or 90-day assessments (A0310B = 01, 02, 03, 04, 05) or discharge assessment with or without return anticipated (A0310F = 10, 11).
Denominator Statement	The denominator is the total number of long-stay residents in the nursing facility who were assessed during the selected target quarter and who did not meet the exclusion criteria.
Denominator Details	Residents are counted if they are long-stay residents, defined as residents whose length of stay is 101 days or more. Residents who return to the nursing home after a hospital discharge will not have their stay reset to zero. The target population includes all long stay residents with a target assessment during the previous 3 months. Target assessments may be an OBRA admission, quarterly, annual or significant change/correction assessments (A0310A = 01, 02, 03, 04, 05, 06) or PPS 5-, 14-, 30-, 60-, or 90-day assessments (A0310B = 01, 02, 03, 04, 05) or discharge assessment with or without return anticipated (A0310F = 10, 11).
Exclusions	Long-stay residents for whom data from J1800 (Any Falls Since Admission/Entry or Reentry or Prior Assessment (OBRA or Scheduled PPS)) or J1900C (Number of Falls Since Admission/Entry or Reentry or Prior Assessment (OBRA or Scheduled PPS)) is missing on all qualifying assessments included in the look-back are excluded from this measure. Residents must be present for more 101 days or more in the facility to be included in long-stay measures. If the facility sample includes fewer than 30 residents, then the facility is excluded from public reporting because of small sample size.
Exclusion details	A long-stay resident is excluded from the denominator if one of the following is true for all of the qualifying assessments included in the look-back scan: 1) the occurrence of a fall was not assessed (J1800 = [-]) OR

	0674 Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)
	2) the assessment indicates that a fall occurred (J1800 = [1]) AND the number of falls with major injury was not assessed (J1900C = [-]). Nursing homes with fewer than 30 residents are excluded because of small sample size.
Risk Adjustment	No risk adjustment or risk stratification This is not applicable. Provided in response box S.15a
Stratification	This measure is not stratified.
Type Score	Rate/proportion better quality = lower score
Algorithm	Step 1: Identify the total number of long-stay residents who have an episode ending during the target quarter and who did not meet the exclusion criteria (i.e., they are not missing data on all qualifying assessments in their episode regarding whether any falls occurred since admission/entry, reentry, or prior assessment and the number of those falls). Step 2: Starting with the set of residents identified in Step 1, determine the number of long-stay residents who experienced one or more falls that resulted in major injury during their episode. Step 3: Divide the result of Step 2 by the result of Step 1. Available at measure-specific web page URL identified in S.1
Copyright / Disclaimer	5.1 Identified measures: 0101 : Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls 0141 : Patient Fall Rate 0202 : Falls with injury 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: #0202 Falls with Injury - Acute Care Prevention of Falls (rate of inpatient falls with injury per 1,000 patient days): Similar focus, but different in that it focuses on adult acute care inpatient and adult rehabilitation patients and is reported as a rate rather than a percentage. Additionally, this measure includes any injury from minor to major. This is an important distinction. Focusing on falls with minor injury could potentially create inappropriate incentives for nursing homes to reduce resident opportunity for mobility and independence. The selection of the outcome of falls with major injury for NQF #0674 was deliberate to reduce this potential adverse unintended consequence. • #0101 Falls Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls: This is a clinical process measure that assesses falls prevention in older adults. The measure has three rates: 1) screening: percentage of patients aged 65 years of age and older who were screened for future fall risk at least once within 12 months; 2) falls risk assessment: percentage of patients aged 65 years of age and older with a history of falls who had a risk assessment for falls completed within 12 months; and 3) plan of care for falls: percentage of patients aged 65 years of age and older with a history of falls who had a plan of care for falls documented within 12 months. This measure is different in that it is a process measure, rather than an outcome measure. • #0141 Patient Fall Rate (Total number of patient falls [with or without injury to the patient and whether or not assisted by a staff member] by hospital unit during the calendar month X 1000): Similar focus, but different in that it focuses on the adult acute care inpatient and adult rehabilitation patients and does not discriminate between falls with and without injuries. This is an important distinction. Focusing on falls with minor injury could potentially create inappropriate incentives for nursing homes to reduce resident opportunity for mobility. The selection of the outcome of falls with major

	0674 Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)
	injury for NQF #0674 was deliberate to reduce this potential adverse unintended consequence. • HHS:004990: Prevalence of falls (long-stay) – Long-stay residents with one or more look-back assessments that indicate the occurrence of a fall (J1800 = [1]): Similar focus and patient population, but different in that it does not discriminate between falls with and without injuries. This is an important distinction. Focusing on falls with minor injury could potentially create inappropriate incentives for nursing homes to reduce resident opportunity for mobility. The selection of the outcome of falls with major injury for NQF #0674 was deliberate to reduce this potential adverse unintended consequence. • MUC38: Falls and Trauma (Includes: Fracture, Dislocation, Intracranial Injury, Crushing Injury, Burn, Electric Shock) – This measure is broader, but includes all documented patient falls with an injury level of minor (2) or greater and focuses on the acute inpatient population. As mentioned above the decision to focus on falls with major injury was deliberate to reduce the potential adverse unintended consequence of incentivizing nursing homes to reduce opportunities for residents to be mobile and independent. 5b.1 If competing, why superior or rationale for additive value: There are no competing measures.

	0202 Falls with injury
Steward	American Nurses Association
Description	All documented patient falls with an injury level of minor or greater on eligible unit types in a calendar quarter. Reported as Injury falls per 1000 Patient Days. (Total number of injury falls / Patient days) X 1000 Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients.
Type	Outcome
Data Source	Electronic Clinical Data, Other, Paper Medical Records Database: National Database of Nursing Quality Indicators(R) [NDNQI(R)]; participant hospitals have NDNQI guidelines and Excel spreadsheets to guide data collection; data are provided to NDNQI via a secure web-based data entry portal or XML upload. Original sources for injury falls are incident reports, patient medical records (including electronic health records). Available at measure-specific web page URL identified in S.1 Attachment falls codebook-634488471691406810-635326354485752311.pdf
Level	Facility, Clinician : Team
Setting	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility
Numerator Statement	Total number of patient falls of injury level minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the calendar month X 1000. Included Populations: • Falls with Fall Injury Level of “minor” or greater, including assisted and repeat falls with an Injury level of minor or greater • Patient injury falls occurring while on an eligible reporting unit Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation in-patient.
Numerator Details	Definition: A patient injury fall is an unplanned descent to the floor with injury (minor or greater) to the patient, and occurs on an eligible reporting nursing unit.* Include falls when a patient lands on a surface where you would not expect to find a patient. Unassisted and assisted (see definition below) falls are to be included whether they result from physiological reasons (e.g., fainting) or environmental reasons (slippery floor). Also report patients that roll off a low bed onto a mat as a fall. Exclude falls: • By visitors • By students • By staff members • Falls on other units not eligible for reporting • By patients from eligible reporting units when patient was not on unit at time of the fall (e.g., patient falls in radiology department) *The nursing unit area includes the hallway, patient room and patient bathroom. A therapy room (e.g., physical therapy gym), even though physically located on the nursing unit, is not considered part of the unit. Assisted fall is a fall in which any staff member (whether a nursing service employee or not) was with the patient and attempted to minimize the impact of the fall by easing the patient’s

	0202 Falls with injury
	descent to the floor or in some manner attempting to break the patient's fall, e.g., when a patient who is ambulating becomes weak and the staff lowers the patient to the floor. In this scenario, the staff was using professional judgment to prevent injury to the patient. A fall that is reported to have been assisted by a family member or a visitor counts as a fall, but does not count as an assisted fall. "Assisting" the patient back into a bed or chair after a fall is not an assisted fall. Any fall that is not documented as an assisted fall counts as an "unassisted fall." When the initial fall report is written by the nursing staff, the extent of injury may not yet be known. Hospitals have 24 hours to determine the injury level, e.g., while awaiting diagnostic test results or consultation reports. Injury levels: None—patient had no injuries (no signs or symptoms) resulting from the fall; if an x-ray, CT scan or other post fall evaluation results in a finding of no injury Minor—resulted in application of a dressing, ice, cleaning of a wound, limb elevation, topical medication, pain, bruise or abrasion Moderate—resulted in suturing, application of steri-strips/skin glue, splinting, or muscle/joint strain Major—resulted in surgery, casting, traction, required consultation for neurological (basilar skull fracture, small subdural hematoma) or internal injury (rib fracture, small liver laceration) or patients with coagulopathy who receive blood products as a result of a fall Death—the patient died as a result of injuries sustained from the fall (not from physiologic events causing the fall) Data Elements required: Collected at a patient level • Month • Year • Event Type (injury fall, assisted fall, repeat fall) • Level of injury • Type of Unit
Denominator Statement	Denominator Statement: Patient days by Type of Unit during the calendar month. Included Populations: •Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: •Adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units. •Patients of any age on an eligible reporting unit are included in the patient day count.
Denominator Details	Conceptually, a patient day is 24 hours, beginning the hour of admission. The operational definitions of patient day are explained in the section labeled Patient Day Reporting Methods. The total number of patient days for each unit is reported for each calendar month in the quarter. Short stay patients = Patients who are not classified as in-patients. Variously called short stay, observation, or same day surgery patients who receive care on in-patient units for all or part of a day. With the growth in the number of short stay patients on in-patient units, the midnight census does not accurately represent the demand for nursing services on many units. Although some facilities have dedicated units for short stay patients, many do not. While the midnight census may be the only measure of patient census available for some facilities, others will have additional information that can be used to produce a patient census that is adjusted to reflect the additional demand for nursing required by short stay patients. Each unit should report patient days using the method that most accurately accounts for the patient work load.

	0202 Falls with injury
	There are four (4) Patient Days reporting methods: •Method 1-Midnight Census This is adequate for units that have all in-patient admissions. This method is not appropriate for units that have both in-patient and short stay patients. The daily number should be summed for every day in the month. •Method 2-Midnight Census + Patient Days from Actual Hours for Short Stay Patients This is an accurate method for units that have both in-patients and short stay patients. The short stay "days" should be reported separately from midnight census and will be summed by NDNQI to obtain patient days. The total daily hours for short stay patients should be summed for the month and divided by 24. •Method 3-Patient Days from Actual Hours This is the most accurate method. An increasing number of facilities have accounting systems that track the actual time spent in the facility by each patient. Sum actual hours for all patients, whether in-patient or short stay, and divide by 24. •Method 4-Patient Days from Multiple Census Reports Some facilities collect censuses multiple times per day (e.g., every 4 hours or each shift). This method has shown to be almost as accurate as Method 3. Patient days based on midnight and noon census have shown to be sufficient in adjusting for short stay patients. A sum of the daily average censuses can be calculated to determine patient days for the month on the unit. Data Elements: • Month • Year • Patient Days Reporting method that includes midnight census and short stay patient days • Type of Unit • Patient days • Short stay patient days
Exclusions	Excluded Populations: Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)
Exclusion details	Patient days must be from the same unit as the patient falls. If unit type is not adult critical care, adult step-down, adult medical, adult surgical, adult medical surgical combined, critical access, or adult rehabilitation inpatient, then unit type is excluded from denominator.
Risk Adjustment	Other Stratification is by unit type (e.g., critical care, step down, medical), which is not identical to risk, but may be related. The unit-level injury falls measure compares like units based on patient population. The unit typology was designed to reflect patient acuity within unit types. The hospital-level injury falls measure uses standardized scores and weighting by unit type for stratification. Provided in response box S.15a
Stratification	Stratification by unit type: General Adult Inpatient Patient Population • Critical Care Highest level of care, includes all types of intensive care units. Optional specialty designations include: Burn, Cardiothoracic, Coronary Care, Medical, Neurology, Pulmonary, Surgical, and Trauma ICU. • Step-Down

	0202 Falls with injury
	Limited to units that provide care for patients requiring a lower level of care than critical care units and higher level of care than provided on medical/surgical units. Examples include progressive care or intermediate care units. Telemetry is not an indicator of acuity level. Optional specialty designations include: Med-Surg, Medical or Surgical Step-Down units. • Medical Units that care for patients admitted to medical services, such as internal medicine, family practice, or cardiology. Optional specialty designations include: BMT, Cardiac, GI, Infectious Disease, Neurology, Oncology, Renal or Respiratory Medical units. • Surgical Units that care for patients admitted to surgical services, such as general surgery, neurosurgery, or orthopedics. Optional specialty designations include: Bariatric, Cardiothoracic, Gynecology, Neurosurgery, Orthopedic, Plastic Surgery, Transplant or Trauma Surgical unit. • Med-Surg Combined Units that care for patients admitted to either medical or surgical services. Optional specialty designations include: Cardiac, Neuro/Neurosurgery or Oncology Med-Surg combined units. • Critical Access Unit Unit located in a Critical Access Hospital that cares for a combination of patients that may include critical care, medical-surgical, skilled nursing (swing bed) and/or obstetrics. Adult Rehabilitation In-patient Patient Population* • Limited to units generally caring for rehab patients over 16 years old. Optional specialty designations include: Brain Injury/SCI, Cardiopulmonary, Neuro/Stroke and Orthopedic/Amputee Rehab units. * Medicare payment policies differentiate rehabilitation from acute care, requiring patients to be discharged from acute care and admitted to a distinct acute rehabilitation unit. Rehabilitation units provide intensive therapy 5 days/week for patients expected to improve.
Type Score	Rate/proportion better quality = lower score
Algorithm	Eligible units identified and selected; input patient days (including method) for each respective unit; input number of injury falls for respective unit by month; then divide to produce monthly injury fall rate per 1000 patient days; then calculate quarterly injury fall rate aa the mean of the 3 months. Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 0141 : Patient Fall Rate 5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: Patient falls is also a measure for which the American Nursese Association is the measure steward. Falls with injury in not a competing measure with patient falls, but rather a subset of falls. Both measures are completely harmonized.

	0141 Patient Fall Rate
Steward	American Nurses Association
Description	All documented falls, with or without injury, experienced by patients on eligible unit types in a calendar quarter. Reported as Total Falls per 1,000 Patient Days. (Total number of falls / Patient days) X 1000 Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients.
Type	Outcome
Data Source	Electronic Clinical Data, Other, Paper Medical Records Database: National Database of Nursing Quality Indicators(R) [NDNQI(R)]; Hospitals have NDNQI guidelines and Excel spreadsheets to guide data collection; data are provided to NDNQI via web based data entry or XML upload. Original sources for falls are incident reports, patient medical records (including electronic health records). Available at measure-specific web page URL identified in S.1 Attachment falls_codebook.pdf
Level	Facility, Clinician : Team
Setting	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility
Numerator Statement	Total number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) by hospital unit during the calendar month X 1000. Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, adult step-down, adult medical, adult surgical, adult medical-surgical combined, critical access, adult rehabilitation in-patient.
Numerator Details	Fall Definition: A patient fall is an unplanned descent to the floor with or without injury to the patient, and occurs on an eligible reporting nursing unit.* Include falls when a patient lands on a surface where you would not expect to find a patient. All unassisted and assisted (see definition below) falls are to be included whether they result from physiological reasons (e.g., fainting) or environmental reasons (slippery floor). Also report patients that roll off a low bed onto a mat as a fall. Exclude falls: • By visitors • By students • By staff members • Falls on other units not eligible for reporting • By patients from eligible reporting units when patient was not on unit at time of the fall (e.g., patient falls in radiology department) *The nursing unit area includes the hallway, patient room and patient bathroom. A therapy room (e.g., physical therapy gym), even though physically located on the nursing unit, is not considered part of the unit. Assisted fall is a fall in which any staff member (whether a nursing service employee or not) was with the patient and attempted to minimize the impact of the fall by easing the patient's descent to the floor or in some manner attempting to break the patient's fall (e.g., when a patient who is ambulating becomes weak and the staff lowers the patient to the floor). In this scenario, the staff was using professional judgment to prevent injury to the patient. A fall that is reported to have been assisted by a family member or a visitor counts as a fall, but does not count as an assisted fall. "Assisting" the patient back into a bed or chair after a fall is not an assisted fall. Any fall that is not documented as an assisted fall counts as an "unassisted fall." Data Elements: Collected at a patient level

	0141 Patient Fall Rate
	• Month • Year • Event Type (fall, assisted fall, repeat fall) • Type of Unit
Denominator Statement	Denominator Statement: Patient days by hospital unit during the calendar month times 1000. Included Populations: •Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: •Adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, and adult rehabilitation units. •Patients of any age on an eligible reporting unit are included in the patient day count.
Denominator Details	Conceptually, a patient day is 24 hours, beginning the hour of admission. The operational definitions of patient day are explained in the section labeled Patient Day Reporting Methods. The total number of patient days for each unit is reported for each calendar month in the quarter. Short stay patients = Patients who are not classified as in-patients. Variously called short stay, observation, or same day surgery patients who receive care on in-patient units for all or part of a day. With the growth in the number of short stay patients on in-patient units, the midnight census does not accurately represent the demand for nursing services on many units. Although some facilities have dedicated units for short stay patients, many do not. While the midnight census may be the only measure of patient census available for some facilities, others will have additional information that can be used to produce a patient census that is adjusted to reflect the additional demand for nursing required by short stay patients. Each unit should report patient days using the method that most accurately accounts for the patient work load. There are four (4) Patient Days reporting methods: •Method 1-Midnight Census This is adequate for units that have all in-patient admissions. This method is not appropriate for units that have both in-patient and short stay patients. The daily number should be summed for every day in the month. •Method 2-Midnight Census + Patient Days from Actual Hours for Short Stay Patients This is an accurate method for units that have both in-patients and short stay patients. The short stay "days" should be reported separately from midnight census and will be summed by NDNQI to obtain patient days. The total daily hours for short stay patients should be summed for the month and divided by 24. •Method 3-Patient Days from Actual Hours This is the most accurate method. An increasing number of facilities have accounting systems that track the actual time spent in the facility by each patient. Sum actual hours for all patients, whether in-patient or short stay, and divide by 24. •Method 4-Patient Days from Multiple Census Reports Some facilities collect censuses multiple times per day (e.g., every 4 hours or each shift). This method has shown to be almost as accurate as Method 3. Patient days based on midnight and noon census have shown to be sufficient in adjusting for short stay patients. A sum of the daily average censuses can be calculated to determine patient days for the month on the unit. Data Elements: • Month • Year

	0141 Patient Fall Rate
	• Patient Days Reporting method that includes midnight census and short stay patient days • Type of Unit • Patient days • Short stay patient days
Exclusions	Excluded Populations: Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)
Exclusion details	Patient days must be from the same unit as the patient falls. If unit type is not adult critical care, adult step-down, adult medical, adult surgical, adult medical surgical combined, critical access, or adult rehabilitation inpatient, then unit type is excluded from denominator.
Risk Adjustment	Other Stratification is by unit type (e.g., critical care, step down, medical), which is not identical to risk, but may be related. The unit-level falls measure compares like units based on patient population. The unit typology was designed to reflect patient acuity within unit types. The hospital-level falls measure uses standardized scores and weighting by unit type for stratification. Provided in response box S.15a
Stratification	Stratification by unit type: General Adult Inpatient Patient Population • Critical Care Highest level of care, includes all types of intensive care units. Optional specialty designations include: Burn, Cardiothoracic, Coronary Care, Medical, Neurology, Pulmonary, Surgical, and Trauma ICU. • Step-Down Limited to units that provide care for patients requiring a lower level of care than critical care units and higher level of care than provided on medical/surgical units. Examples include progressive care or intermediate care units. Telemetry is not an indicator of acuity level. Optional specialty designations include: Med-Surg, Medical or Surgical Step-Down units. • Medical Units that care for patients admitted to medical services, such as internal medicine, family practice, or cardiology. Optional specialty designations include: BMT, Cardiac, GI, Infectious Disease, Neurology, Oncology, Renal or Respiratory Medical units. • Surgical Units that care for patients admitted to surgical services, such as general surgery, neurosurgery, or orthopedics. Optional specialty designations include: Bariatric, Cardiothoracic, Gynecology, Neurosurgery, Orthopedic, Plastic Surgery, Transplant or Trauma Surgical unit. • Med-Surg Combined Units that care for patients admitted to either medical or surgical services. Optional specialty designations include: Cardiac, Neuro/Neurosurgery or Oncology Med-Surg combined units. • Critical Access Unit Unit located in a Critical Access Hospital that cares for a combination of patients that may include critical care, medical-surgical, skilled nursing (swing bed) and/or obstetrics. Adult Rehabilitation In-patient Patient Population* • Limited to units generally caring for rehab patients over 16 years old. Optional specialty designations include: Brain Injury/SCI, Cardiopulmonary, Neuro/Stroke and Orthopedic/Amputee Rehab units.

	0141 Patient Fall Rate
	* Medicare payment policies differentiate rehabilitation from acute care, requiring patients to be discharged from acute care and admitted to a distinct acute rehabilitation unit. Rehabilitation units provide intensive therapy 5 days/week for patients expected to improve.
Type Score	Rate/proportion better quality = lower score
Algorithm	Eligible units identified and selected; input patient days (including method) for each respective unit; input number of falls for respective unit by month; then divide to produce monthly fall rate per 1000 patient days; then calculate quarterly fall rate as mean of the 3 months. Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 0202 : Falls with injury 5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: Falls with injury is also a measure for which the American Nursese Association is the measure steward. Falls with injury in not a competing measure with patient falls, but rather a subset of falls. Both measures are completely harmonized.

	0537 Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate
Steward	Centers for Medicare & Medicaid Services
Description	Percentage of home health episodes of care in which patients who can ambulate had a multi-factor fall risk assessment at start/resumption of care.
Type	Process
Data Source	Electronic Clinical Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS-C), which is a core standard assessment data set that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The data set is the foundation for valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the state OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate measure) available to consumers and to the general public through the Medicare Home Health Compare website. Available at measure-specific web page URL identified in S.1 Attachment 2015_Data_Dictionary.xlsx
Level	Facility
Setting	Home Health
Numerator Statement	Number of home health episodes of care in which patients who can ambulate had a multi-factor fall risk assessment at start/resumption of care.
Numerator Details	Number of home health patient episodes of care where at start of episode: - (M1910) Has patient had a Multi-factor Fall Risk Assessment = 1 (yes - found no risk) or 2 (yes - found risk)
Denominator Statement	Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.
Denominator Details	Number of home health patient episodes of care, defined as: A start/resumption of care assessment ((M0100) Reason for Assessment = 1 (Start of care) or 3 (Resumption of care)) paired with a corresponding discharge/transfer assessment ((M0100) Reason for Assessment = 6 (Transfer to inpatient facility – not discharged), 7 (Transfer to inpatient facility – discharged), 8 (Death at home), or 9 (Discharge from agency)), other than those covered by denominator exclusions.
Exclusions	Episodes in which the patient was unable to ambulate at the time of assessment.
Exclusion details	Measure Specific Exclusions: Number of home health patient episodes of care where at start of episode: -(M0100) Reason for Assessment = 1 (Start of care) AND -(M1860) Ambulation/Locomotion = 4, 5, or 6 PLUS Number of home health patient episodes of care where at start of episode:

	0537 Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate
	-(M0100) Reason for Assessment = 3 (Resumption of care) AND -(M1860) Ambulation/Locomotion = 4, 5, or 6 Generic Exclusions: Medicare-certified home health agencies are currently required to collect and submit OASIS data only for adult (aged 18 and over) non-maternity Medicare and Medicaid patients who are receiving skilled home health care. Therefore, maternity patients, patients less than 18 years of age, non-Medicare/Medicaid patients, and patients who are not receiving skilled home services are all excluded from the measure calculation. However, the OASIS items and related measures could potentially be used for other adult patients receiving services in a community setting, ideally with further testing. The publicly-reported data on CMS' Home Health Compare web site also repress cells with fewer than 20 observations, and reports for home health agencies in operation less than six months.
Risk Adjustment	No risk adjustment or risk stratification Not Applicable- process measure. Provided in response box S.15a
Stratification	Not Applicable- measure not stratified.
Type Score	Rate/proportion better quality = higher score
Algorithm	Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome and process quality measures. Target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions. Generic exclusions: None. Measure specific exclusions: Episodes of care for which the patient was assessed to be chairfast or bedfast (M1860_CUR_AMBLTN[1] = 04 OR M1860_CRNT_AMBLTN[1] = 05 OR M1860_CRNT_AMBLTN[1] = 06) Cases meeting the target process: Episodes of care during which the patient received a multi-factor fall risk assessment at start/resumption of care (M1910_MLT_FCTR_FALL_RISK_ASMT[1] = 01 OR M1910_MLT_FCTR_FALL_RISK_ASMT[1] = 02) Aggregating Data: The observed process measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target process (numerator) criteria. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 0101 : Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls 0035 : Fall Risk Management (FRM) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: Fall Risk Management (NQF #0035) is a process measure that incorporates two rates: discussion of fall risk between patient and provider and patient report that providers managed fall risk. However, this measure is calculated for adults older than 75 or 65-74 with self-reported fall or balance issue within prior 12 months, and is specific to ambulatory care or acute care facilities. Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls (NQF #0101) is a clinical process measure that incorporates screening for fall risk and plan of care for falls. The measure has three rates: patients over 65 screened for future fall risk at least once in prior 12 months (history of falls); patients with a risk assessment for falls within the prior 12 months;

	0537 Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate
	and plan of care for falls. The measure has been endorsed for use in ambulatory care and post-acute care settings, including home health care. A new version of this measure is currently under consideration, which will require a multifactorial risk assessment. Data for this measure is calculated from claims data and electronic clinical data. The current measure (#0537) used in home care is not limited to older adult patients. 5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS for quality measures addressing fall risk assessment for home health care patients who can ambulate resulted in two conceptually similar measures. Fall Risk Management (NQF #0035) is a process measure that incorporates two rates

	0538 Pressure Ulcer Prevention and Care
Steward	Centers for Medicare & Medicaid Services
Description	Pressure Ulcer Risk Assessment Conducted: Percentage of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers at start/resumption of care. Pressure Ulcer Prevention Included in Plan of Care: Percentage of home health episodes of care in which the physician-ordered plan of care included interventions to prevent pressure ulcers. Pressure Ulcer Prevention Implemented: Percentage of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.
Type	Process
Data Source	Electronic Clinical Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS-C), which is a core standard assessment data set that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The data set is the foundation for valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repository. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data to the OASIS repository. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including this measure) available to consumers and to the general public through the Medicare Home Health Compare website. Available at measure-specific web page URL identified in S.1 Attachment 2015_Data_Dictionary-635638474121315509.xlsx
Level	Facility
Setting	Home Health
Numerator Statement	Pressure Ulcer Risk Assessment Conducted: Number of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers either via an evaluation of clinical factors or using a standardized tool, at start/resumption of care. Pressure Ulcer Prevention Included in Plan of Care: Number of home health episodes of care in which the physician-ordered plan of care included interventions to prevent pressure ulcers. Pressure Ulcer Prevention Implemented: Number of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.
Numerator Details	Pressure Ulcer Risk Assessment Conducted: Number of home health patient episodes of care where at start of episode: (M1300) Pressure Ulcer Risk Assessment conducted = 1 (yes-clinical factors) or 2 (yes-standardized tool) Pressure Ulcer Prevention Included in Plan of Care: Number of home health patient episodes of care where at start of episode: (M2250f) Pressure Ulcer Prevention in Care Plan = 1 (yes) Pressure Ulcer Prevention Implemented: Number of home health patient episodes of care where at end of episode: (M2400e) Pressure Ulcer Prevention Plan implemented = 1 (yes)

	0538 Pressure Ulcer Prevention and Care
Denominator Statement	Pressure Ulcer Risk Assessment Conducted: Number of home health episodes of care ending during the reporting period, other than those covered by generic exclusions. Pressure Ulcer Prevention Included in Plan of Care: Number of home health episodes of care ending during the reporting period, other than those covered by generic exclusions. Pressure Ulcer Prevention Implemented: Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.
Denominator Details	Denominator for each measure: Number of home health patient episodes of care, defined as: A start/resumption of care assessment ((M0100) Reason for Assessment = 1 (Start of care) or 3 (Resumption of care)) paired with a corresponding discharge/transfer assessment ((M0100) Reason for Assessment = 6 (Transfer to inpatient facility – not discharged), 7 (Transfer to inpatient facility – discharged), 8 (Death at home), or 9 (Discharge from agency)), other than those covered by denominator exclusions.
Exclusions	Pressure Ulcer Risk Assessment Conducted: No measure-specific exclusions. Pressure Ulcer Prevention Included in Plan of Care: Episodes in which the patient is not assessed to be at risk for pressure ulcers. Pressure Ulcer Prevention Implemented: Number of home health episodes in which the patient was not assessed to be at risk for pressure ulcers, or the home health episode ended in transfer to an inpatient facility or death.
Exclusion details	Pressure Ulcer Risk Assessment Conducted: Measure Specific Exclusions: None Pressure Ulcer Prevention Included in Plan of Care: Measure Specific Exclusions: Number of patient episodes where at start of episode: (M2250f) Pressure Ulcer Prevention in Care Plan = NA – Patient is not assessed to be at risk for pressure ulcers Pressure Ulcer Prevention Implemented: Measure-specific Exclusions: Number of home health patient episodes of care where at end of episode: (M0100) Reason for Assessment = 8 (death at home) PLUS Number of home health patient episodes of care where at end of episode: (M0100) Reason for Assessment = 6 or 7 (transfer to inpatient facility) or 9 (discharge) AND (M2400e) Pressure Ulcer Prevention Plan implemented = NA (Formal assessment indicates the patient was not at risk of pressure ulcers since the last OASIS assessment) Generic exclusions for all three measures: Medicare-certified home health agencies are currently required to collect and submit OASIS data only for adult (aged 18 and over) non-maternity Medicare and Medicaid patients who are receiving skilled home health care. Therefore, maternity patients, patients less than 18 years of age, non-Medicare/Medicaid patients, and patients who are not receiving skilled home services are all excluded from the measure calculation. However, the OASIS items and related measures could potentially be used for other adult patients receiving services in a community setting, ideally with further testing. The publicly-reported data on CMS' Home Health Compare web site also repress cells with fewer than 20 observations and reports for home health agencies in operation less than six months.
Risk Adjustment	No risk adjustment or risk stratification Not Applicable - process measure Provided in response box S.15a

	0538 Pressure Ulcer Prevention and Care
Stratification	Not Applicable - not stratified
Type Score	Rate/proportion better quality = higher score
Algorithm	Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome and process quality measures. Target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions. Generic exclusions: None. Measure specific exclusions: Pressure Ulcer Risk Assessment Conducted: None. Pressure Ulcer Prevention Included in Plan of Care: Episodes of care for which pressure ulcer risk assessment (clinical or formal) indicates patient is not at risk of developing pressure ulcers (M2250_PLAN_SMRY_PRSULC_PRVNT[1] = NA). Pressure Ulcer Prevention Implemented: Episodes of care ending with the death of the patient of for which pressure ulcer risk assessment indicates the patient is not at risk of developing pressure ulcers (M2400_INTRVTN_SMRY_PRSULC_PRVN[2] = NA OR M0100_ASSMT_REASON[2] = 08). Cases meeting the target process: Pressure Ulcer Risk Assessment Conducted: Episodes of care during which the patient was assessed for risk of developing pressure ulcers at start/resumption of care (M1300_PRSR_ULCR_RISK_ASMT[1] = 01 OR M1300_PRSR_ULCR_RISK_ASMT[1] = 02). Pressure Ulcer Prevention Included in Plan of Care: Episodes of care during which the physician-ordered plan of care included intervention(s) to prevent pressure ulcers (M2250_PLAN_SMRY_PRSULC_PRVNT[1] = 01). Pressure Ulcer Prevention Implemented: Episodes of care ending with the death of the patient of for which pressure ulcer risk assessment indicates the patient is not at risk of developing pressure ulcers (M2400_INTRVTN_SMRY_PRSULC_PRVN[2] = NA OR M0100_ASSMT_REASON[2] = 08). Pressure Ulcer Prevention Implemented: Episodes of care during which intervention(s) to prevent pressure ulcers were BOTH included in the physician-ordered plan of care AND implemented (M2400_INTRVTN_SMRY_PRSULC_PRVN[2] = 01). Aggregating Data: The observed process measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target process (numerator) criteria. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS for quality measures addressing pressure ulcer prevention and care for home health patients found no other endorsed measures for a home health population. Percent of Residents or Patients with Pressure Ulcers That Are New or Wor

	0352 Failure to Rescue In-Hospital Mortality (risk adjusted)
Steward	The Children's Hospital of Philadelphia
Description	Percentage of patients who died with a complications in the hospital.
Type	Outcome
Data Source	Administrative claims Linked patient hospitalizations claims records, augmented with Outpatient and Part B records; can also use unlinked data if linked files are not available to identify comorbidities and develop definitions of severity and other risk measure. Available at measure-specific web page URL identified in S.1 No data dictionary
Level	Population : County or City, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional, Population : State
Setting	Hospital/Acute Care Facility
Numerator Statement	Patients who died with a complication plus patients who died without documented complications. Death is defined as death in the hospital. All patients in an FTR analysis have developed a complication (by definition). Complication patient has at least one of the complications defined in Appendix B (see attachment and website http://www.research.chop.edu/programs/cor/node/26). Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission. Comorbidities are defined in Appendix C (see attachment and website http://www.research.chop.edu/programs/cor/node/26) using secondary ICD9 diagnosis codes of the current admission and primary or secondary ICD9 diagnosis codes of previous admission within 90 days of the admission date of the current admission. *When Physician Part B is available, the definition of complications and comorbidities are augmented to include CPT codes.
Numerator Details	General Surgery, Orthopedic and Vascular patients in specific DRGs with complications who died and patients who died without documented complications. Death is defined as death in the hospital.
Denominator Statement	General Surgery, Orthopedic and Vascular patients in specific DRGs with complications plus patients in specific General Surgery, Orthopedic and Vascular DRGs who died in the hospital without complications. Inclusions: adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A http://www.research.chop.edu/programs/cor/node/26).
Denominator Details	Adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A http://www.research.chop.edu/programs/cor/node/26) who developed an in hospital complication and those with a General Surgery, Orthopedic, or Vascular DRG without a complication, but who died in the hospital.
Exclusions	Patients over age 90, under age 18.
Exclusion details	N/A
Risk Adjustment	Statistical risk model Risk Adjustment: Model was developed using logistic regression analysis. Failure-to-rescue is adjusted using a logistic regression model where y is a failure and the total N is composed of patients who develop a complication and patients who died without a complication. We typically use the following set of variables: Age

	0352 Failure to Rescue In-Hospital Mortality (risk adjusted)
	Sex Emergency Admission Status Transfer-in Status Congestive Heart Failure Stroke Seizure Dementia Alcoholism Drug Abuse Electrolyte/Fluid Abnormality Past MI Past Arrhythmia Unstable Angina Angina Hypertension Valvular Disease COPD Asthma Liver Disease Renal Dysfunction Renal Failure Diabetes Paraplegia Collagen Vascular Disease Coagulopathy Thrombocytopenia Congenital Coagulopathy/Hemophilia Smoking Post-inflammatory Pulmonary Fibrosis Graves' Disease Cushing's Disease Cancer Specific Abdominal Cancer Hypothyroidism Chronic Peptic Ulcer Weight Loss DRGs, combined with and without complications (see Appendix A) Principal Procedures This metric can be used for various populations that are very diverse. The previously described risk adjustment model is an example of a model that can be used and illustrates that this metric can be used with risk adjustment. While this metric has widespread application, the appropriate risk adjustment model is dependent on the study population. Users should apply a model with coefficients that would be applicable to their patient population. According to developer: The model adjustment variables that can be used to adjust FTR can vary, depending on the quality, quantity, and clinical specificity of covariates included in the

	0352 Failure to Rescue In-Hospital Mortality (risk adjusted)
	data sources available to the provider, organization, or researcher. We have found that FTR results are fairly stable, even with little adjustment, since all patients in an FTR analysis have developed a complication (by definition), they are a more homogeneous group of patients than the entire population. Hence severity adjustment plays somewhat less of a role than in other outcome measures. Provided in response box S.15a
Stratification	Complicated patient has at least one of the complications defined in Appendix B (http://www.research.chop.edu/programs/cor/node/26). Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission. When Physician Part B file is available, the definition of complications and comorbidities are augmented to include CPT codes.
Type Score	Rate/proportion better quality = lower score
Algorithm	Patients admitted to an acute care facility with a stay characterized by a DRG of interest as outlined in the attached Appendix that can also be found on the website (http://www.research.chop.edu/programs/cor/node/26). Those patients alive and without complications were excluded, as were any below 18 years of age or above 90 years old. Cases meeting the target process were therefore between the ages of 18-90 years old, admitted to an acute care facility for a DRG of interest, and had a complication or died without a complication attributed to the death. Risk adjustment is done in accordance to the relativeness of coefficients to the patient population, not all variables are meaningful. The event of interest in death. Failure-to-Rescue is the rate of deaths in the target case population. Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 0351 : Death among surgical inpatients with serious, treatable complications (PSI 4) 0353 : Failure to Rescue 30-Day Mortality (risk adjusted) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: 0351 identifies a subpopulation with treatable complications and defines the numerator as only those deaths with this type of complication. In essence, the difference with 0351 hinges on what are labeled as serious, treatable complications and whether they can be distinguished from other complications. As such, 50% of deaths are excluded using this definition resulting in lower reliability and in addition is susceptible to gaming. 0353 limits the time period for which death occurs to the first 30-days of an admission. 5b.1 If competing, why superior or rationale for additive value: Needleman et al. adapted the FTR measure to “nurse sensitive complications” by selecting a limited number of complications for the FTR measure. This change in definition, which we will call FTR-N, was developed to better focus on nursing quality of care.

	0353 Failure to Rescue 30-Day Mortality (risk adjusted)
Steward	The Children's Hospital of Philadelphia
Description	Percentage of patients who died with a complication within 30 days from admission
Type	Outcome
Data Source	Administrative claims Linked patients hospitalizations claims records, augmented with Outpatient and Part B records; can also use unlinked data if linked files are not available to identify comorbidities and develop definitions of severity and other risk measure. Available at measure-specific web page URL identified in S.1 No data dictionary
Level	Population : County or City, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional, Population : State
Setting	Hospital/Acute Care Facility
Numerator Statement	Patients who died with a complication plus patients who died without documented complications. Death is defined as death within 30 days from admission. All patients in an FTR analysis have developed a complication (by definition). Complicated patient has at least one of the complications defined in Appendix B (see attachment and website http://www.research.chop.edu/programs/cor/node/26). Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission. Comorbidities are defined in Appendix C (see attachment and website http://www.research.chop.edu/programs/cor/node/26) using secondary ICD9 diagnosis codes of the current admission and primary or secondary ICD9 diagnosis codes of previous admission within 90 days of the admission date of the current admission. *When Physician Part B is available, the definition of complications and comorbidities are augmented to include CPT codes
Numerator Details	General Surgery, Orthopedic and Vascular patients in specific DRGs with complications who died and patients who died without documented complications. Death is defined as death within 30 days from admission.
Denominator Statement	General Surgery, Orthopedic and Vascular patients in specific DRGs with complications plus patients who died in the hospital without complications. Inclusions: adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A at http://www.research.chop.edu/programs/cor/node/26)
Denominator Details	Adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A at http://www.research.chop.edu/programs/cor/node/26) who developed an in hospital complication and those who died without a complication.
Exclusions	Patients over age 90, under age 18.
Exclusion details	N/A
Risk Adjustment	Statistical risk model Risk Adjustment: Model was developed using logistic regression analysis. Failure-to-rescue is adjusted using a logistic regression model where y is a failure and the total N is composed of patients who develop a complication and patients who died without a complication. We typically use the following set of variables: Age Sex Emergency Admission Status

	0353 Failure to Rescue 30-Day Mortality (risk adjusted)
	Transfer-in Status Congestive Heart Failure Stroke Seizure Dementia Alcoholism Drug Abuse Electrolyte/Fluid Abnormality Past MI Past Arrhythmia Unstable Angina Angina Hypertension Valvular Disease COPD Asthma Liver Disease Renal Dysfunction Renal Failure Diabetes Paraplegia Collagen Vascular Disease Coagulopathy Thrombocytopenia Congenital Coagulopathy/Hemophilia Smoking Post-inflammatory Pulmonary Fibrosis Graves' Disease Cushing's Disease Cancer Specific Abdominal Cancer Hypothyroidism Chronic Peptic Ulcer Weight Loss DRGs, combined with and without complications (see Appendix A) Principal Procedures This metric can be used for various populations that are very diverse. The previously described risk adjustment model is an example of a model that can be used and illustrates that this metric can be used with risk adjustment. While this metric has widespread application, the appropriate risk adjustment model is dependent on the study population. Users should apply a model with coefficients that would be applicable to their patient population. According to developer: The model adjustment variables that can be used to adjust FTR can vary, depending on the quality, quantity, and clinical specificity of covariates included in the data sources available to the provider, organization, or researcher. We have found that FTR results are fairly stable, even with little adjustment, since all patients in an FTR analysis have

	0353 Failure to Rescue 30-Day Mortality (risk adjusted)
	developed a complication (by definition), they are a more homogeneous group of patients than the entire population. Hence severity adjustment plays somewhat less of a role than in other outcome measures. Provided in response box S.15a
Stratification	Complicated patient has at least one of the complications defined in Appendix B (http://www.research.chop.edu/programs/cor/node/26). Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission. When Physician Part B file is available, the definition of complications and comorbidities are augmented to include CPT codes.
Type Score	Rate/proportion better quality = lower score
Algorithm	Patients admitted to an acute care facility with a stay characterized by a DRG of interest as outlined in the attached Appendix that can also be found on the website (http://www.research.chop.edu/programs/cor/node/26). Those patients alive and without complications were excluded, as were any below 18 years of age or above 90 years old. Cases meeting the target process were therefore between the ages of 18-90 years old, admitted to an acute care facility for a DRG of interest, and had a complication or died without a complication attributed to the death. Risk adjustment is done in accordance to the relativeness of coefficients to the patient population, not all variables are meaningful. The event of interest in death. Failure-to-Rescue is the rate of deaths in the target case population. Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 0351 : Death among surgical inpatients with serious, treatable complications (PSI 4) 0352 : Failure to Rescue In-Hospital Mortality (risk adjusted) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: 0351 identifies a subpopulation with treatable complications and defines the numerator as only those deaths with this type of complication. In essence, the difference with 0351 hinges on what are labeled as serious, treatable complications and whether they can be distinguished from other complications. As such, 50% of deaths are excluded using this definition resulting in lower reliability and in addition is susceptible to gaming. 0352 does not limit the time period for which death occurs to the first 30-days of an admission. 5b.1 If competing, why superior or rationale for additive value: Needleman et al. adapted the FTR measure to “nurse sensitive complications” by selecting a limited number of complications for the FTR measure. This change in definition, which we will call FTR-N, was developed to better focus on nursing quality of care.

	0679 Percent of High Risk Residents with Pressure Ulcers (Long Stay)
Steward	Centers for Medicare & Medicaid Services
Description	This measure reports the percentage of long-stay residents identified as at high risk for pressure ulcers in a nursing facility who have one or more Stage 2-4 or unstageable pressure ulcer(s) reported on a target Minimum Data Set (MDS) assessment (OBRA, PPS, and/or discharge) during their episode during the selected target quarter. High risk populations are defined as those who are comatose, or impaired in bed mobility or transfer, or suffering from malnutrition. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care. A separate measure (NQF#0678, Percent of Residents With Pressure Ulcers That are New or Worsened (Short-Stay)) is to be used for residents whose length of stay is less than or equal to 100 days.
Type	Outcome
Data Source	Electronic Clinical Data http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/NHQIQualityMeasures.html Please see "MDS 3.0 QM User's Manual" in Downloads section at the bottom of the page. Available in attached appendix at A.1 No data dictionary
Level	Facility
Setting	Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility
Numerator Statement	The numerator is the number of long-stay residents identified as at high risk for pressure ulcer with a target MDS 3.0 assessment (OBRA quarterly, annual or significant change/correction assessments or PPS 14-, 30-, 60-, or 90-day assessments; or discharge assessment with or without return anticipated) in an episode during the selected target quarter reporting one or more Stage 2-4 or unstageable pressure ulcer(s) at time of assessment. High risk residents are those who are comatose, or impaired in bed mobility or transfer, or suffering from malnutrition. Unstageable pressure ulcers include pressure ulcers that are unstageable due to non-removable dressing/device (M0300E1), slough or eschar (M0300F1), and suspected deep tissue injury (M0300G1).
Numerator Details	Residents are counted if they are long-stay residents, defined as residents whose length of stay is 101 days or more. Residents who return to the nursing home following a hospital discharge may not have their length of stay within the episode of care reset to zero. The numerator is the number of long-stay residents with a selected target assessment that meets both of the following conditions: 1. Condition #1: There is a high risk for pressure ulcers, where high-risk is defined in the denominator definition below. 2. Condition #2: Stage 2-4 or unstageable pressure ulcers are present, as indicated by any of the following six conditions: 2.1 Current number of unhealed Stage 2 ulcers (M0300B1) = [1, 2, 3, 4, 5, 6, 7, 8, 9 or more] or 2.2 Current number of unhealed Stage 3 ulcers (M0300C1) = [1, 2, 3, 4, 5, 6, 7, 8, 9 or more] or 2.3 Current number of unhealed Stage 4 ulcers (M0300D1) = [1, 2, 3, 4, 5, 6, 7, 8, 9 or more] or 2.4 Current number of unstageable ulcers due to non-removable dressing/device (M0300E1) = [1, 2, 3, 4, 5, 6, 7, 8, 9 or more] or 2.5 Current number of unstageable ulcers due to wound bed being covered by slough or eschar (M0300F1) = [1, 2, 3, 4, 5, 6, 7, 8, 9 or more] or 2.6 Current number of unstageable ulcers with suspected deep tissue injury in evolution (M0300G1) = [1, 2, 3, 4, 5, 6, 7, 8, 9 or more]. Stage 1 pressure ulcers are not included in this measure because recent studies have identified difficulties in objectively measuring them across different populations (Lynn et al.,

	0679 Percent of High Risk Residents with Pressure Ulcers (Long Stay)
	2007). Stage 2 pressure ulcer: Partial thickness loss or dermis presenting as shallow open ulcer with red or pink wound bed, without slough. May also present as an intact or open/ruptured blister. Stage 3 pressure ulcer: Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon, or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining or tunneling. Stage 4 pressure ulcer: Full thickness tissue loss with exposed bone or tendon, or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining or tunneling. Non-removable dressing/device: Includes, for example, a primary surgical dressing that cannot be removed, an orthopedic device, or cast. Slough tissue: Non-viable yellow, tan, gray, green or brown tissue; usually moist, can be soft, stringy and mucinous in texture. Slough may be adherent to the base of the wound or present in clumps throughout the wound bed. Eschar tissue: Dead or devitalized tissue that is hard or soft in texture; usually black, brown, or tan in color, and may appear scab-like. Necrotic tissue and eschar are usually firmly adherent to the base of the wound and often the sides/ edges of the wound. Suspected deep tissue injury: Purple or maroon area of discolored intact skin due to damage of underlying soft tissue. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue. (Target assessments may be OBRA quarterly, annual or significant change/correction assessments (A0310A = 02, 03, 04, 05, 06) or PPS 14-, 30-, 60-, 90-day assessments (A0310B = 02, 03, 04, 05) or discharge assessment with or without return anticipated (A0310F = 10, 11)). Reference 1. Lynn J, West J, Hausmann S, Gifford D, Nelson R, McGann P, Bergstrom N, Ryan JA (2007). Collaborative clinical quality improvement for pressure ulcers in nursing homes. Journal of the American Geriatrics Society, 55(10), 1663-9.
Denominator Statement	The denominator includes all long-stay nursing home residents who had a target MDS assessment (ORBA, PPS, or discharge) during the selected quarter and were identified as at high risk for pressure ulcer, except those meeting the exclusion criteria.
Denominator Details	Residents are counted if they are long-stay residents, defined as residents whose length of stay is 101 days or more. Residents who return to the nursing home following a hospital discharge may not have their length of stay within the episode of care reset to zero. The denominator is the number of long-stay residents with a selected target assessment (assessment types include: a quarterly, annual, significant change/correction admission OBRA assessment (A0310A = 02, 03, 04, 05, 06); or a PPS 14-, 30-, 60-, or 90-day assessment (A0310B = 02, 03, 04, 05); or discharge with or without return anticipated (A0310F = 10, 11)) during the selected quarter, except those with exclusions. Residents must be high risk for pressure ulcer where high risk is defined by meeting one of the following criteria on the selected target assessment: 1. Impaired in bed mobility or transfer: This is indicated by a level of assistance reported on either item G0110A1, Bed mobility (self-performance) or G0110B1 Transfer (self-performance) at the level of: extensive assistance (3), total dependence (4), activity occurred only once or twice (7) OR activity or any part of the ADL was not performed by resident or staff at all over the entire 7 day period (8) OR 2. Comatose (B0100 = 1 (yes))

	0679 Percent of High Risk Residents with Pressure Ulcers (Long Stay)
	OR 3. Malnutrition [protein or calorie] or at risk for malnutrition (Active Diagnoses Item I5600 = 01)
Exclusions	A resident is excluded from the denominator if the target MDS assessment is an OBRA admission assessment, a PPS 5-day assessment or a PPS readmission/return assessment, or if the resident did not meet the pressure ulcer conditions for the numerator AND any Stage 2, 3, or 4 item is missing (M0300B1 = - OR M0300C1 = - OR M0300D1 = -). If the facility sample includes fewer than 30 residents, then the facility is excluded from public reporting because of small sample size.
Exclusion details	A long-stay resident is excluded from the denominator if the MDS assessment in the current quarter is an OBRA admission assessment or a PPS 5-day assessment or a readmission/return PPS assessment: 1. OBRA Admission assessment (A0310A = 01) OR 2. 5-day PPS assessment (A0310B = 01) OR 3. Readmission/return PPS assessment (A0310B = 06) In addition, a resident is excluded if the resident did not meet the pressure ulcer conditions for the numerator AND any of the following conditions are true: 1. M0300B1 (Current number of unhealed Stage 2 ulcers) = missing 2. M0300C1 (Current number of unhealed Stage 3 ulcers) = missing 3. M0300D1 (Current number of unhealed Stage 4 ulcers) = missing 4. M0300E1 (Current number of unstageable ulcers due to non-removable dressing/device) = missing 5. M0300F1 (Current number of unstageable ulcers due to coverage of wound bed by slough or eschar) = missing 6. M0300G1 (Current number of unstageable ulcers with suspected deep tissue injury in evolution) = missing Nursing homes are excluded from public reporting because of small sample size if their sample includes fewer than 30 residents.
Risk Adjustment	Other Other: Sample restriction - this measure is restricted to residents who are at high risk for pressure ulcers. Residents are identified as high risk if they meet any of the following three criteria: 1. Impaired in bed mobility or transfer, 2. Comatose, or This is not applicable.
Stratification	This measure is not stratified.
Type Score	Rate/proportion better quality = lower score
Algorithm	Step 1: For each facility, identify the total number (sum) of high risk long-stay residents with a target assessment meeting the denominator criteria. Step 2: Starting with the set of residents identified in Step 1, determine the number of high risk long-stay residents in the numerator (i.e., the total number with stage 2, 3 or 4 or unstageable ulcers at target assessment). Step 3: Divide the result of Step 2 by the result of Step 1. Available at measure-specific web page URL identified in S.1
Copyright / Disclaimer	5.1 Identified measures: 0678 : Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short-Stay)

	0679 Percent of High Risk Residents with Pressure Ulcers (Long Stay)
	: Pressure Ulcer Rate (PDI 2) 0538 : Pressure Ulcer Prevention and Care 0201 : Pressure ulcer prevalence (hospital acquired) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: # 0678 Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short-Stay). This measure has a similar focus but a different target population, which is short-stay residents of nursing homes who tend to be post-acute and have needs for skilled services. The measure also does not focus on high risk residents. The measure also focuses on new or worsened ulcers, which is appropriate for residents staying the facility for only a short period of time, whereas NQF # 0679 focuses on prevalent ulcers, holding facilities accountable for healing ulcers in addition to prevention. Data sources are the same for these two measures. # 0201 Pressure ulcer prevalence (hospital acquired). This measure has a similar focus but a different target population (hospital) and data source in addition to only capturing new or worsened pressure ulcers. # 0538 Pressure Ulcer Prevention and Care. This measure has a similar focus, but a different target population (home health patients) in addition to being a process measure focusing on pressure ulcer risk assessment, plan of care development, and prevention implementation. # 0337 Pressure Ulcer Rate (PDI 2). This measure has a similar focus, but a different target population (hospital). The measure only captures stage three and four ulcers and is claims based. 5b.1 If competing, why superior or rationale for additive value: Not applicable. There are no competing measures.

	0687 Percent of Residents Who Were Physically Restrained (Long Stay)
Steward	Centers for Medicare & Medicaid Services
Description	The measure reports the percentage of all long-stay residents who were physically restrained daily during the 7 days prior to the target MDS 3.0 assessment (OBRA, PPS or discharge) during their episode of nursing home care ending in the target quarter (3-month period). Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care.
Type	Process
Data Source	Electronic Clinical Data Nursing Home Minimum Data Set 3.0 Available in attached appendix at A.1 No data dictionary
Level	Facility
Setting	Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility
Numerator Statement	The numerator is the number of long-stay residents with a selected target Minimum Data Set (MDS) assessment (assessments may be OBRA, PPS or discharge) who have experienced daily physical restraint usage during the 7 days prior to the selected assessment, as indicated by MDS 3.0, Section P, Item P0100, subitems B (P0100B – Trunk restraint used in bed), C (P0100C – Limb restraint used in bed), E (P0100E – Trunk restraint used in chair or out of bed), F (P0100F – Limb restraints used in chair or out of bed), or G (P0100G – Chair prevents rising).
Numerator Details	Residents are counted if they are long-stay residents, defined as residents whose cumulative length of stay is 101 days or more. Residents who return to the nursing home following a hospital discharge may not have their stay count within the episode of care reset to zero. Residents are counted if any of the following items on the target assessment are coded as "2", meaning that the physical restraint was used daily during the 7 days prior to the assessment: P0100B- Trunk restraint used in bed, P0100C-Limb restraint used in bed, P0100E- Trunk restraint used in chair or out of bed, P0100F-Limb restraint used in chair or out of bed, or P0100G-Chair prevents rising. Target assessments may be an OBRA admission, quarterly, annual or significant change/correction assessments (A0310A = 01, 02, 03, 04, 05, 06) or PPS 5-, 14-, 30-, 60-, or 90-day assessments (A0310B = 01, 02, 03, 04, 05) or discharge assessment with or without return anticipated (A0310F = 10, 11).
Denominator Statement	The denominator is the total number of all long-stay residents in the nursing facility who have a target OBRA, PPS or discharge MDS 3.0 assessment during the selected quarter and who do not meet the exclusion criteria.
Denominator Details	Residents are counted if they are long-stay residents defined as residents whose length of stay is 101 days or more. Residents who return to the nursing home following a hospital discharge may not have their day count within the episode of care reset to zero. The population includes all long-stay residents with a target MDS 3.0 , except those with exclusions. . Target assessments may be an OBRA admission, quarterly, annual or significant change/correction assessments (A0310A = 01, 02, 03, 04, 05, 06) or PPS 5-, 14-, 30-, 60-, or 90-day assessments (A0310B = 01, 02, 03, 04, 05) or discharge assessment with or without return anticipated (A0310F = 10, 11).
Exclusions	A resident is excluded from the denominator if there is missing data in any of the responses to the relevant questions in the MDS (P0100B= -, or P0100C= -, or P0100E= -, or P0100F= -, or P0100G= -). If the facility sample includes fewer than 30 residents, then the facility is excluded from public reporting.
Exclusion details	The assessment is excluded if the resident is not in the numerator and there are missing values for any of the items in the numerator, i.e., P0100B = [-], Trunk restraint used in bed; P0100C = [-], Limb restraint used in bed; P0100E =[-], Trunk restraint used in chair or out of bed; P0100F =[-], Limb restraint used in chair or out of bed; or P0100G =[-], Chair prevents

	0687 Percent of Residents Who Were Physically Restrained (Long Stay)
	rising. If the facility sample includes fewer than 30 residents, then the facility is excluded from public reporting.
Risk Adjustment	No risk adjustment or risk stratification This is not applicable. Provided in response box S.15a
Stratification	This is not applicable.
Type Score	Rate/proportion better quality = lower score
Algorithm	Step 1: Identify the total number of long-stay residents who have a target assessment (OBRA, PPS, or discharge) during the quarter and who did not meet the exclusion criteria (i.e., they are not missing data on use of any type of physical restraint). Step 2: Starting with the set of residents identified in Step 1, determine the number of long-stay residents who have a target MDS assessment (OBRA, PPS, or discharge) reporting daily incidence of physical restraint use during the 7 days prior to the target assessment. Step 3: Divide the result of Step 2 by the result of Step 1. Available at measure-specific web page URL identified in S.1
Copyright / Disclaimer	5.1 Identified measures: 0640 : HBIPS-2 Hours of physical restraint use 0203 : Restraint prevalence (vest and limb) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: NQF # 0203 Physical restraint (vest and limb only). While this measure has a similar focus, it is for use in acute care and uses a different definition of restraints. NQF # 0640 HBIPS-2 Hours of physical restraint use. This measure also has as similar focus but is for use in hospital-based inpatient psychiatric setting and is based on patient days. Detailed data on days of restraint use is not currently available on the MDS. The measure #0687 is specified to capture daily restraint use over the 7 days preceding the resident's assessment. 5b.1 If competing, why superior or rationale for additive value: This is not applicable. There are no competing measures.

	0689 Percent of Residents Who Lose Too Much Weight (Long-Stay)
Steward	Centers for Medicare & Medicaid Services
Description	This measure reports the percentage of long-stay nursing home residents with a target Minimum Data Set (MDS) assessment (OBRA, PPS, Discharge) that indicates a weight loss of 5% or more of the baseline weight in the last 30 days or 10% or more of the baseline weight in the last 6 months, which is not a result of a physician-prescribed weight-loss regimen. The baseline weight is the resident's weight closest to 30 or 180 days before the date of the target assessment. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care.
Type	Outcome
Data Source	Electronic Clinical Data http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/NHQIQualityMeasures.html Please see "MDS 3.0 QM User's Manual" in Downloads section at the bottom of the page. Available in attached appendix at A.1 No data dictionary
Level	Facility
Setting	Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility
Numerator Statement	The numerator is the number of long-stay residents with a selected target MDS assessment (OBRA, PPS, or discharge) during the selected target quarter indicating that he or she has experienced a weight loss of 5% or more of the baseline weight in the last 30 days or 10% or more of the baseline weight in the last 6 months and the weight loss was not planned or prescribed by a physician (K0300 = [2]). The baseline weight is the resident's weight closest to 30 or 180 days before the date of the target assessment.
Numerator Details	Long-stay residents are counted in the numerator if they have a selected target assessment that indicates a weight loss of 5% or more of the baseline weight in the last month or 10% or more of the baseline weight in the last six months and they are not on a physician-prescribed weight loss regimen (K0300=[2]). The baseline weight is the resident's weight closest to 30 or 180 days before the date of the target assessment. Long-stay residents are defined as residents whose cumulative length of stay in the facility is 101 days or more. Residents who return to the nursing home following a hospital discharge may not have their day count within the episode of care reset to zero. The target assessment types include quarterly, annual, significant change, or correction OBRA assessment (A0310A = [02, 03, 04, 05, 06[); or a PPS 14-, 30-, 60-, or 90-day assessment (A0310B = [02, 03, 04, 05]); or discharge with or without return anticipated (A0310F = [10, 11]).
Denominator Statement	The denominator is the number of long-stay nursing home residents with a selected target assessment except those with exclusions.
Denominator Details	Residents are counted if they are long-stay residents defined as residents whose cumulative length of stay is 101 days or more. Residents who return to the nursing home following a hospital discharge may not have their day count within the episode of care reset to zero. The denominator is the number of long-stay residents with a selected target assessment (assessment types include: a quarterly, annual, significant change, or correction OBRA assessment (A0310A =[02, 03, 04, 05, 06]); or a PPS 14-, 30-, 60-, or 90-day assessment (A0310B = [02, 03, 04, 05]); or discharge with or without return anticipated (A0310F = [10, 11])) during the selected quarter, except those with exclusions. If the resident has a target assessment indicating a prognosis of less than six months to live (J1400 = [01]) or is receiving hospice care (O0100K2 = [01]), or if the information on weight loss, six-month prognosis, or hospice care is missing (K0300 = [-], J1400 = [-], or O0100K2 = [-]), the assessment is excluded from the denominator.
Exclusions	There are four exclusions applied to the denominator: (1) the target assessment is an OBRA admission assessment, a PPS 5-day assessment, or a readmission/return assessment, (2)

	0689 Percent of Residents Who Lose Too Much Weight (Long-Stay)
	having a prognosis of life expectancy of less than six months or the six-month prognosis item is missing on the target assessment, (3) receiving hospice care or the hospice care item is missing on the target assessment, or/and (4) the weight loss item is missing on the target assessment. Nursing facilities with fewer than 30 residents in the denominator are excluded from public reporting because of small sample size.
Exclusion details	The four measure denominator exclusions are detailed as follows: 1. Target assessment is an OBRA admission assessment (A0310A= [01]) OR a PPS 5-day assessment (A0310B= [01]), OR a readmission/return assessment (A0310B= [06]). 2. Prognosis of life expectancy is less than 6 months (J1400 = [01]) or the six-month prognosis item is missing (J1400 = [-]) on the target assessment. 3. Receiving hospice care (O0100K2 = [01]) or the hospice care item is missing (O0100K2 = [-]) on the target assessment. 4. Weight loss item is missing on the target assessment (K0300= [-]). Nursing facilities with fewer than 30 residents counted in the denominator are excluded from public reporting because of small sample size.
Risk Adjustment	No risk adjustment or risk stratification This is not applicable. Provided in response box S.15a
Stratification	This measure is not stratified.
Type Score	Rate/proportion better quality = lower score
Algorithm	Step 1: Identify the total number of long-stay residents who have a target assessment (OBRA, PPS, Discharge) during a quarter and don't meet the exclusion criteria. Step 2: Starting with the set of residents identified in Step 1, determine the number of long-stay residents who have experienced weight loss of 5% or more in the last month or 10% or more in the last six months and the weight loss was not planned or prescribed by a physician (K0300=[02]). Step 3: Divide the result of Step 2 by the result of Step 1. Available at measure-specific web page URL identified in S.1
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: There are no related measures. 5b.1 If competing, why superior or rationale for additive value: No competing measure.

	2723 Wrong-Patient Retract-and-Reorder (WP-RAR) Measure
Steward	Montefiore Health System
Description	A Wrong-Patient Retract-and-Reorder (WP-RAR) event occurs when an order is placed on a patient within an EHR, is retracted within 10 minutes, and then the same clinician places the same order on a different patient within the next 10 minutes. A Wrong-Patient Retract-and-Reorder rate is calculated by dividing WP-RAR events by total orders examined.
Type	Outcome
Data Source	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Imaging/Diagnostic Study, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy, Electronic Clinical Data : Registry No data collection instrument provided No data dictionary
Level	Facility, Integrated Delivery System, Clinician : Team
Setting	Ambulatory Care : Ambulatory Surgery Center (ASC), Ambulatory Care : Clinician Office/Clinic, Dialysis Facility, Emergency Medical Services/Ambulance, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Pharmacy, Ambulatory Care : Urg
Numerator Statement	Total Wrong-Patient Retract-and-Reorder (RAR) events.
Numerator Details	A Wrong-Patient Retract-and-Reorder (WP-RAR) event occurs when an electronic order, including medications, lab tests, imaging, procedures and general care orders, is placed on a patient, is retracted within 10 minutes, and then the same clinician places the same order on a different patient within the next 10 minutes. Orders are excluded as potential Wrong-Patient Retract-and-Reorder events if they are reordered on the initial patient by any provider within 24 h of retraction.
Denominator Statement	All patients.
Denominator Details	All electronic orders including medications, lab tests, imaging, procedures and general care orders.
Exclusions	None
Exclusion details	None
Risk Adjustment	Stratification by risk category/subgroup
Stratification	Results may be stratified by provider type (e.g., MD, RN, PA, Pharmacist, etc.), patient type (e.g., age, gender, race/ethnicity, etc.), order type (e.g., medications, lab tests, imaging, etc.), or location (e.g., ED, Inpatient, Outpatient, etc.).
Type Score	Rate/proportion better quality = lower score
Algorithm	Measure Logic for Wrong-Patient Retract-and-Reorder (WP-RAR) Events Numerator 1. Obtain all orders and discontinuation of orders for a given time period. For each order and discontinuation of an order, capture patient and provider demographics of interest, as well as details including date and time of order or discontinuation, as well as type of order with order details (e.g., Tylenol 325 mg orally three times a day for seven days). 2. Identify the First Order of a potential WP-RAR event (orders that are retracted or discontinued within 10 minutes of being placed). 3. Identify the Second Order of a potential WP-RAR event. Get the next non-retracted order that was placed within 10 minutes of the above retracted order by the same clinician on a different patient, where the order is the same as the retracted order. The order should be the same general order, but the underlying details do not need to be an exact match (e.g., dose can change as computer may adjust dose based on patient weight).

	2723 Wrong-Patient Retract-and-Reorder (WP-RAR) Measure
	4. Exclude orders as potential WP-RAR events if they are reordered on the initial patient by any provider within 24 hours of retraction. 5. Any order that meets the above criteria, and is not removed according to the exclusion criteria, is a WP-RAR event. Denominator 1. Obtain all orders examined in the given period. For each order, capture patient and provider demographics of interest, as well as order details including date and time of order and type of order. Rate Calculation (per 100,000 orders) 1. For a given time period, the WP-RAR Rate is calculated by total WP-RAR events divided by total orders multiplied by 100,000. 2. The WP-RAR Rate can be stratified by subgroups of interest. Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value:

	0097 Medication Reconciliation Post-Discharge
Steward	National Committee for Quality Assurance
Description	The percentage of discharges for patients 18 years of age and older for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record by a prescribing practitioner, clinical pharmacist or registered nurse.
Type	Process
Data Source	Administrative claims, Electronic Clinical Data, Paper Medical Records Health Plan Level: - This measure is based on administrative claims and medical record documentation collected in the course of providing care to health plan patients. NCQA collects the Healthcare Effectiveness Data and Information Set (HEDIS) data for this measure directly from Health Maintenance Organizations via NCQA's online data submission system. Physician Level: - This measure is based on administrative claims to identify the eligible population and medical record documentation collected in the course of providing care to health plan patients to identify the numerator. In the PQRS program, this measure is coded using CPT and CPT Category II codes specific to quality measurement. No data collection instrument provided No data dictionary
Level	Clinician : Group/Practice, Health Plan, Clinician : Individual, Integrated Delivery System
Setting	Ambulatory Care : Clinician Office/Clinic
Numerator Statement	Medication reconciliation conducted by a prescribing practitioner, clinical pharmacist or registered nurse on or within 30 days of discharge. Medication reconciliation is defined as a type of review in which the discharge medications are reconciled with the most recent medication list in the outpatient medical record.
Numerator Details	This measure is specified for medical record or administrative data collection. Medical Record Numerator Details: - Documentation in the outpatient medical record must include evidence of medication reconciliation between the inpatient medication list and the medication list in the outpatient medical record, and the date on which it was performed. Any of the following evidence meets criteria: (1) Documentation of the current medications with a notation that references the discharge medications (e.g., no changes in meds since discharge, same meds at discharge, discontinue all discharge meds), (2) Documentation of the patient's current medications with a notation that the discharge medications were reviewed, (3) Documentation that the provider "reconciled the current and discharge meds," (4) Documentation of a current medication list, a discharge medication list and notation that the appropriate practitioner type reviewed both lists on the same date of service, (5) Notation that no medications were prescribed or ordered upon discharge Administrative: Medication Reconciliation CPT Codes: - 99495: Transitional care management services with the following required elements: (1) communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge, (2) medical decision making of at least moderate complexity during the service period and (3) face-to-face visit, within 14 calendar days of discharge. - 99496: Transitional care management services with the following required elements: (1) communication (direct contact, telephone, electronic) with the patient and/or caregiver within 2 business days of discharge, (2) medical decision making of high complexity during the service period and (3) face-to-face visit, within 7 calendar days of discharge. - 1111F: Discharge med/current med merge

	0097 Medication Reconciliation Post-Discharge
Denominator Statement	All discharges from an in-patient setting for patients who are 18 years and older.
Denominator Details	The denominator for this measure is identified by administrative codes, which are specific to the level of reporting. The denominator for both levels of reporting is based on episodes, not patients. If patients have more than one discharge, include all discharges between January 1 and December 1 of the measurement year. This measure is stratified by age group so three denominator groups are identified for each level of reporting: Patients age 18-64, Patients age 65+ and all patients. Health Plan Level: Administrative: - An acute or nonacute inpatient discharge on or between January 1 and December 1 of the measurement year. - Stratify the denominator by age group based on age as of December 31 of the measurement year: Patients 18-64 years of age; Patients 65 years of age and older; All Patients 18 years of age and older. Physician Level: - Patients who were discharged from an acute or nonacute inpatient facility on or between January 1 and December 1 of the measurement year and seen within 30 days following discharge in the office by the physician, prescribing practitioner, registered nurse, or clinical pharmacist providing on-going care. Codes to identify visit with on-going care provider are below. - Stratify the denominator by age group based on age on the date of encounter: Patients 18-64 years of age; Patients 65 years of age and older; All Patients 18 years of age and older. CPT encounter codes for visit with Ongoing Care Provider: 90791, 90792, 90832, 90834, 90837, 90839, 90845, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99495, 99496, G0402, G0438, G0439
Exclusions	The following exclusions are applicable to the Health Plan Level measure. - Exclude both the initial discharge and the readmission/direct transfer discharge if the readmission/direct transfer discharge occurs after December 1 of the measurement year. - If the discharge is followed by a readmission or direct transfer to an acute or non-acute facility within the 30-day follow-up period, count only the readmission discharge or the discharge from the facility to which the patient was transferred.
Exclusion details	N/A
Risk Adjustment	No risk adjustment or risk stratification N/A
Stratification	N/A
Type Score	Rate/proportion better quality = higher score
Algorithm	Step 1: Determine the eligible population. The eligible population is all the patients aged 18 years and older. Step 2: Determine number of patients meeting the denominator criteria as specified in section S.9 above. The denominator includes all patients discharged from an inpatient facility. Patients may be counted more than once in the denominator if they had more than one discharge during the measurement year. Stratify the patients by age groups. Step 3: Determine the number of patients who meet the numerator criteria as specified in section S.6 above. The numerator includes all patients who had a reconciliation of the

	0097 Medication Reconciliation Post-Discharge
	discharge mediations with the current medication list in the outpatient medical record documented. Step 4: Calculate the rate by dividing the total from Step 3 by the total from Step 2 for each age strata. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 0419 : Documentation of Current Medications in the Medical Record 0646 : Reconciled Medication List Received by Discharged Patients (Discharges from an Inpatient Facility to Home/Self Care or Any Other Site of Care) 0553 : Care for Older Adults (COA) – Me 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: See 5b.1 for more details. 5b.1 If competing, why superior or rationale for additive value: This measure assesses medication reconciliation between a discharge medication list and an outpatient medication list conducted post hospital discharge by an ongoing care provider and documented in the outpatient record. The denominator for this measure i

	0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls
Steward	National Committee for Quality Assurance
Description	This is a clinical process measure that assesses falls prevention in older adults. The measure has three rates: A) Screening for Future Fall Risk: Percentage of patients aged 65 years and older who were screened for future fall risk at least once within 12 months B) Falls Risk Assessment: Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months C) Plan of Care for Falls: Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months
Type	Process
Data Source	Administrative claims, Electronic Clinical Data, Paper Medical Records This measure is based on administrative claims to identify the eligible population and medical record documentation collected in the course of providing care to patients to identify the numerator. In the Physician Quality Reporting System (PQRS) program this measure is coded using CPT Category II specific to quality measurement. No data collection instrument provided No data dictionary
Level	Clinician : Group/Practice, Clinician : Individual
Setting	Ambulatory Care : Clinician Office/Clinic, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility
Numerator Statement	This measure has three rates. The numerators for the three rates are as follows: A) Screening for Future Fall Risk: Patients who were screened for future fall* risk** at last once within 12 months B) Falls Risk Assessment: Patients who had a risk assessment*** for falls completed within 12 months C) Plan of Care for Falls: Patients with a plan of care**** for falls documented within 12 months. *A fall is defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force. **Risk of future falls is defined as having had had 2 or more falls in the past year or any fall with injury in the past year. ***Risk assessment is comprised of balance/gait assessment AND one or more of the following assessments: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months. ****Plan of care must include consideration of vitamin D supplementation AND balance, strength and gait training.
Numerator Details	This measure has three rates. The numerator for each rate is met by documentation in the medical record as follows: A) Screening for Future Fall Risk: Documentation of whether patient has had two or more falls or one fall with injury in the past year. A fall is defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force. Patients are considered to be numerator compliant if any of the following

	0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls
	codes are present in the patient record. B) Falls Risk Assessment: Documentation of a falls risk assessment completed in the 12 month measurement period comprised of balance/gait AND one or more of the following: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months. All components do not need to be completed during a single patient visit, but should be documented in the medical record as having been performed within the past 12 months. Balance/gait: (1) Documentation of observed transfer and walking, or (2) Use of a standardized scale (eg, Get Up & Go, Berg, Tinetti), or (3) Documentation of referral for assessment of balance/gait Postural blood pressure: Documentation of blood pressure values in standing and supine positions Vision: (1) Documentation that patient is functioning well with vision or not functioning well with vision based on discussion with the patient, or (2) Use of a standardized scale or assessment tool (eg, Snellen), or (3) Documentation of referral for assessment of vision Home fall hazards: (1) Documentation of counseling on home falls hazards, or (2) Documentation of inquiry of home fall hazards, or (3) referral for evaluation of home fall hazards. Medications: Documentation of whether the patient's current medications may or may not contribute to falls. C) Plan of Care to Prevent Future Falls: Documentation of a plan of care for fall risks completed in the 12 month measurement period comprised of consideration of vitamin D supplementation AND balance, strength and gait training. All components do not need to be completed during a single patient visit, but should be documented in the medical record as having been performed within the past 12 months. Consideration of vitamin D supplementation: Documentation that vitamin D supplementation was advised or considered, or referral for evaluation for vitamin D supplementation advice Balance, strength, and gait training: Documentation that balance, strength, and gait training/instructions were provided, or referral to an exercise program, which includes at least one of the three components: balance, strength or gait or referral to physical therapy. This measure is also collected in the Physician Quality Reporting System using CPT Category II codes specific to the quality measure rates: 1100F - Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year 1101F - Patient screened for future fall risk; documentation of no falls in the past year or only one fall without injury in the past year 3288F: Falls risk assessment documented 0518F: Falls plan of care documented
Denominator Statement	A) Screening for Future Fall Risk: All patients aged 65 years and older seen by an eligible provider in the past year. B & C) Falls Risk Assessment & Plan of Care for Falls: All patients aged 65 years and older seen by an eligible provider in the past year with a history of falls (history of falls is defined as 2 or more falls in the past year or any fall with injury in the past year).
Denominator Details	The Screening for Futures Fall Rate is used to identify the denominator for the remaining two rates, Falls Risk Assessment and Falls Plan of Care. A) Screening for Future Fall Risk: Patients are included in the denominator if they have been seen by a healthcare practitioner during the measurement period. Use the following CPT codes to identify encounters that meet inclusion criteria:

	0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls
	92540, 92541, 92542, 92548, 97001, 97002, 97003, 97004, 99201, 99202, 99203, 99204, 99205,99211, 99212, 99213, 99214, 99215, , 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0344, G0402, G0438, G0439 B & C) Falls Risk Assessment & Plan of Care for Falls: Patients are included in the denominator if they have been seen by a healthcare practitioner during the measurement period and have a documented history of falls (two or more falls or one fall with injury in the past year). Documentation of patient reported history of falls is sufficient. Use the following CPT codes to identify encounters that meet inclusion criteria: 92540, 92541, 92542, 92548, 97001, 97002, 97003, 97004, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402, G0438, G0439 This measure is also collected in the Physician Quality Reporting System using a CPT Category II code specific to the quality measure to identify the denominator for Falls Risk Assessment & Plan of Care for Falls: 1100F: Patient screened for future fall risk; documentation of two or more falls in the past year.
Exclusions	Patients who have documentation of medical reason(s) for not screening for future fall risk, undergoing a risk-assessment or having a plan of care (e.g., patient is not ambulatory) are excluded from this measure.
Exclusion details	Patients are considered to be excluded from measurement if there is documentation of a medical reason(s) for not screening for future fall risk, undergoing a risk-assessment or having a plan of care: Patient is not ambulatory, bed ridden, immobile, confined to chair, wheelchair bound, dependent on helper pushing wheelchair, independent in wheelchair or minimal help in wheelchair. In the Physician Quality Reporting System CPT Category II codes specific to the quality measure are used to identify exclusions: 1100F–1P OR 1101F–1P: Documentation of medical reason(s) for not screening for future fall risk 3288F with 1P: Documentation of medical reason(s) for not completing a risk assessment for falls 0518F with 1P: Documentation of medical reason(s) for no plan of care for falls
Risk Adjustment	No risk adjustment or risk stratification N/A
Stratification	N/A
Type Score	Rate/proportion better quality = higher score
Algorithm	This measure is reported at three rates calculated by creating a fraction with the following components: Denominator, Numerator, and Exclusions. Step 1: Determine the eligible population. The eligible population is all patients aged 65 years and older. Step 2: Determine number of patients meeting the denominator criteria for (A) screening for future fall risk as specified in Section S.9 above. The denominator includes all patients 65 and up seen by a health care provider in the measurement year. Step 3: Identify patients with valid exclusions and remove from the denominator (step 2). Patients with documented medical reason(s) for not screening for fall risk (e.g., patient is not ambulatory) are excluded from to the denominator. Step 4: Determine the number of patients who meet the numerator criteria for (A) screening

	0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls
	for future fall risk as specified in section S.6 above. The numerator includes all patients in the denominator population (step 3) who were screened for future fall risk as least once within a twelve-month period. Step 5: Determine the number of patients from Step 3 who meet the denominator criteria for (B) risk assessment for falls and (C) plan of care for falls as specified in sectionS.9. Step 6: Identify patients with valid exclusions and remove from the denominator (step 5). Patients with documented medical reason(s) for not screening for fall risk (e.g., patient is not ambulatory) and not having a plan of care to prevent future falls are excluded from to the denominator. Step 7: Determine the number of patients who meet the numerator criteria for (B) risk assessment for falls as specified in section S.6 above. The numerator includes all patients in the denominator (step 6) who received a risk assessment within 12 months. Step 8: Determine the number of patients who meet the numerator criteria for (C) plan of care for falls as specified in section S.6 above. The numerator includes all patients in the denominator (step 6) population with a documented plan of care for falls within 12 months. Step 9: Calculate rates as follows (A) screening for future fall risk = step 4/step 3; (B) risk assessment for falls= step 7/step 6; (C) plan of care for falls = step 8/step 6. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 0537 : Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate 0141 : Patient Fall Rate 0202 : Falls with injury 0035 : Fall Risk Management (FRM) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: See 5b.1. for more information. 5b.1 If competing, why superior or rationale for additive value: NQF# 0141 measures patient fall rate in the hospital setting during one month. This measure is related but not competing. The target population is different (#0141 – adults in the hospital setting) and the measure concept is different (#0141 rate of falls

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
Steward	American Nurses Association
Description	NSC-12.1 - Percentage of total productive nursing hours worked by RN (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.2 - Percentage of total productive nursing hours worked by LPN/LVN (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.3 - Percentage of total productive nursing hours worked by UAP (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.4 - Percentage of total productive nursing hours worked by contract or agency staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities by hospital unit. Note that the skill mix of the nursing staff (NSC-12.1, NSC-12.2, and NSC-12.3) represent the proportions of total productive nursing hours by each type of nursing staff (RN, LPN/LVN, and UAP); NSC-12.4 is a separate rate. Measure focus is structure of care quality in acute care hospital units.
Type	Structure
Data Source	Management Data, Other Database: National Database of Nursing Quality Indicators(R) [NDNQI(R)]; Hospitals have NDNQI guidelines and Excel spreadsheets to guide data collection; data are provided to NDNQI via web based data entry or XML upload. Available at measure-specific web page URL identified in S.1 Attachment Codebook_staffing.pdf
Level	Facility, Clinician : Team
Setting	Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility
Numerator Statement	Four separate numerators are as follows: RN hours – Productive nursing care hours worked by RNs with direct patient care responsibilities for each hospital in-patient unit during the calendar month. LPN/LVN hours – Productive nursing care hours worked by LPNs/LVNs with direct patient care responsibilities for each hospital in-patient unit during the calendar month. UAP hours – Productive nursing care hours worked by UAP with direct patient care responsibilities for each hospital in-patient unit during the calendar month. Contract or agency hours – Productive nursing care hours worked by nursing staff (contract or agency staff) with direct patient care responsibilities for each hospital in-patient unit during the calendar month.
Numerator Details	Nursing care hours are defined as the number of productive hours worked by nursing staff (registered nurse [RN], licensed vocational/practical nurse [LVN/LPN], and unlicensed assistive personnel [UAP]) assigned to the unit who have direct patient care responsibilities for greater than 50% of their shift. Productive hours are actual direct patient care hours worked by nursing staff including overtime, not budgeted or scheduled hours. Vacation, sick time, orientation, education leave, or committee time are considered non-productive hours. However, orientation programs vary from hospital to hospital. Once orientees reach the point where they are considered part of the staffing matrix, their work hours are charged to the unit and they would be replaced if they call in sick, then their hours are counted as productive. Direct patient care responsibilities: Patient centered nursing activities by unit-based staff in the presence of the patient and activities that occur away from the patient that are patient related: • Medication administration

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
	• Nursing treatments • Nursing rounds • Admission, transfer, discharge activities • Patient teaching • Patient communication • Coordination of patient care • Documentation time • Treatment planning • Patient screening (e.g. risk) and assessment Nursing staff included are either staff employed by the facility or temporary staff who are not employed by the facility (contracted/agency staff). Float staff—those are assigned to a unit other than their unit of employment on an as-needed basis—must be counted and reported in the unit's total nursing care hours where they provided direct patient care. Included nursing staff: Staff who are counted in the unit's staffing matrix, and Are replaced if they call in sick, and Work hours are charged to the unit's cost center Excluded nursing staff: 1)Persons whose primary responsibility is administrative in nature 2)Specialty teams, patient educators, or case managers who are not assigned to a specific unit 3)Unit secretaries or clerks, monitor technicians, and other with no direct patient care responsibilities (Therapy assistants, student nurses who are fulfilling educational requirements, sitters who either are not employed by the facility or who are employed by the facility, but are not providing typical UAP activities) Unlicensed Assistive Personnel (UAPs): Individuals trained to function in an assistive role to nurses in the provision of patient care, as delegated by and under the supervision of the registered nurse. Typical activities performed by UAPs may include (but are not limited to): taking vital signs, bathing, feeding, or dressing patients, assisting patients with transfers, ambulation or toileting. Included UAPs: nursing assistants, orderlies, patient care technicians/assistants, graduate nurses (not yet licensed) who have completed unit orientation. Mental Health Technicians (MHT): For Psychiatric In-Patient Units ONLY Individuals functioning in an assistive role, for which your facility requires course work or training that is different from UAP. They may be licensed or unlicensed. MHT hours are included in UAP hours when reporting, but their hours are collected separately from UAP hours if persons in this job position also meet the following criteria: • They are engaged in direct care activities greater than 50% time, and • Their position is staffed 24/7 and replaced when they call in sick, and • Their hours are included in the nursing staff budget Data Elements: RN hours (Employee) RN hours (Contract/Agency) LPN/LVN hours (Employee) LPN/LVN hours (Contract/Agency) UAP hours (Employee)

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
	UAP hours (Contract/Agency) MHT hours (Employee) MHT hours (Contract/Agency) Year Month Type of Unit
Denominator Statement	Denominator is the total number of productive hours worked by employee or contract nursing staff with direct patient care responsibilities (RN, LPN/LVN, and UAP) for each hospital in-patient unit during the calendar month.
Denominator Details	Same as numerator; Total number of productive hours worked by nursing staff with direct patient care responsibilities for each in-patient unit is obtained by summing all number of productive hours worked by specific nursing staff with direct patient care responsibilities (RN, LPN/LVN, or UAP) for each hospital in-patient unit during the calendar month. Nursing staff included are either staff employed by the facility or temporary staff who are not employed by the facility (contracted/agency staff). Float staff—those are assigned to a unit other than their unit of employment on an as-needed basis—must be counted and reported in the unit's total nursing care hours where they provided direct patient care. Included nursing staff: Staff who are counted in the unit's staffing matrix, and Are replaced if they call in sick, and Work hours are charged to the unit's cost center. Excluded nursing staff: 1)Persons whose primary responsibility is administrative in nature 2)Specialty teams, patient educators, or case managers who are not assigned to a specific unit 3)Unit secretaries or clerks, monitor technicians, and other with no direct patient care responsibilities Data Elements: RN hours (Employee) RN hours (Contract/Agency) LPN/LVN hours (Employee) LPN/LVN hours (Contract/Agency) UAP hours (Employee) UAP hours (Contract/Agency) MHT hours (Employee) MHT hours (Contract/Agency) Month Year Type of Unit
Exclusions	Same as numerator; nursing staff with no direct patient care responsibilities are excluded.
Exclusion details	Excluded nursing staff: Persons whose primary responsibility is administrative in nature. Specialty teams, patient educators, or case managers who are not assigned to a specific unit. Unit secretaries or clerks, monitor technicians, and other with no direct patient care responsibilities.

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
Risk Adjustment	Other Each unit is stratified by unit type (e.g., critical care, step down, medical), which is not identical to risk, but may be related. The measure is stratified by unit type to reflect differences in patient populations and acuity. For the hospital level measure a weighted calculation based on standardized scores across unit types is used. Provided in response box S.15a
Stratification	Stratification variables are patient population and unit type. Units are stratified by patient population first and then unit type based on acuity level, age, or type of service provided. 1. Patient population 1) Adult population: limited to units generally caring for patients over 16 years old. 2) Pediatric population: limited to units generally caring for patients under 18 years old. 3) Neonate population: limited to units caring for newborn infants. 4) Psychiatric population: units caring for patients with psychiatric disorders. 5) Rehabilitation population: limited to distinct acute rehabilitation units providing intensive therapy 5 days/week. 2. Unit types by population 1) Adult population Critical Care Highest level of care, includes all types of intensive care units. Optional specialty designations include: Burn, Cardiothoracic, Coronary Care, Medical, Neurology, Pulmonary, Surgical and Trauma. Step-Down Limited to units that provide care for patients requiring a lower level of care than critical care units and higher level of care than provided on medical/surgical units. Examples include progressive care or intermediate care units. Telemetry alone is not an indicator of acuity level. Medical Units that care for patients admitted to medical services, such as internal medicine, family practice, or cardiology. Optional specialty designations include: BMT (Bone Marrow Transplant), Cardiac, GI, Infectious Disease, Neurology, Oncology, Renal or Respiratory. Surgical Units that care for patients admitted to surgical services, such as general surgery, neurosurgery, or orthopedics. Optional specialty designations include: Bariatric, Cardiothoracic, Gynecology, Neurosurgery, Orthopedic, Plastic Surgery, Transplant or Trauma. Medical-Surgical Combined Units that care for patients admitted to either medical or surgical services. Optional specialty designations include: Cardiac, Neuro/Neurosurgery or Oncology. Critical Access A unit located in a Critical Access Hospital that cares for a combination of patients that may include critical care, medical-surgical, skilled nursing (swing bed) and/or obstetrics. 2) Pediatric population Refer to Adult unit type descriptions for corresponding unit types. Critical care Step-Down Medical Surgical

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
	Medical-Surgical Combined 3) Neonate population The three unit types below (Level I, II, and III/IV) are based on the Guidelines for Perinatal Care, 5th Ed., which are used by state certification programs. Level I, II, and III/IV neonatal units are the highest level of infant care provided, and are specified by sequential level of acuity. Well-baby Nursery Level I Continuing Care Level II Intermediate Care Level III/IV Critical Care 4) Psychiatric population Adult Units caring for adult patients with acute psychiatric disorders. Child/Adolescent Units caring for children and/or adolescents, predominantly ages 2-18 years old, with acute psychiatric disorders. Geripsych Units caring for elderly patients with acute psychiatric disorders. Other (Behavioral Health, Specialty, Multiple Psychiatric Unit Types) Behavioral Health Units caring for individuals of any age with eating disorders or substance abuse (alcohol and drugs) diagnoses. Specialty Units caring for patients of any age with dual diagnoses (e.g., mental illness and mental retardation, or substance abuse and an additional mental illness diagnosis). Multiple Psychiatric Unit Types Units caring for patients that encompass 3 or more of the above unit types, but for which no one unit type comprises greater than 50% of the entire unit. 5) Rehabilitation population Adult Limited to units generally caring for rehab patients over 16 years old. Optional specialty designations include: Brain Injury/SCI, Cardiopulmonary, Neuro/Stroke and Orthopedic/Amputee Rehab units. Pediatric Limited to units generally caring for rehab patients under 18 years old.
Type Score	Rate/proportion better quality = higher score
Algorithm	Eligible unit identified and selected; input nursing care hours for each eligible staff category by month; then perform calculations to produce the quarterly nursing care hours for each eligible staff category by summing monthly values of the 3 months; then calculate the total nursing care hours by summing quarterly nursing care hours for each eligible staff category; then divide the quarterly nursing care hours for each eligible staff category by the total quarterly nursing care hours. Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 0205 : Nursing Hours per Patient Day 0190 : Nurse staffing hours - 4 parts

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
	5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: Nursing hours per patient day and nurse staffing hours – 4 parts are related, not competing measures. Nursing hours per patient day is also a measure for which the American Nurses Association is the measure steward, and measures a different aspect of nurs

	0205 Nursing Hours per Patient Day
Steward	American Nurses Association
Description	NSC-13.1 (RN hours per patient day) – The number of productive hours worked by RNs with direct patient care responsibilities per patient day for each in-patient unit in a calendar month. NSC-13.2 (Total nursing care hours per patient day) – The number of productive hours worked by nursing staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities per patient day for each in-patient unit in a calendar month. Measure focus is structure of care quality in acute care hospital units.
Type	Structure
Data Source	Management Data, Other Database: National Database of Nursing Quality Indicators(R) [NDNQI(R)]; Hospitals have NDNQI guidelines and Excel spreadsheets to guide data collection; data are provided to NDNQI via web based data entry or XML upload. Available at measure-specific web page URL identified in S.1 Attachment Codebook_staffing-635642771203956188.pdf
Level	Facility, Clinician : Team
Setting	Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility
Numerator Statement	Total number of productive hours worked by nursing staff with direct patient care responsibilities for each hospital in-patient unit during the calendar month.
Numerator Details	Nursing care hours are defined as the number of productive hours worked by nursing staff (registered nurse [RN], licensed vocational/practical nurse [LVN/LPN], and unlicensed assistive personnel [UAP]) assigned to the unit who have direct patient care responsibilities for greater than 50% of their shift. Productive hours are actual direct patient care hours worked by nursing staff including overtime, not budgeted or scheduled hours. Vacation, sick time, orientation, education leave, or committee time are considered non-productive hours. However, orientation programs vary from hospital to hospital. Once orientees reach the point where they are considered part of the staffing matrix, their work hours are charged to the unit, and they would be replaced if they call in sick, then their hours are counted as productive. Direct patient care responsibilities: Patient centered nursing activities by unit-based staff in the presence of the patient and activities that occur away from the patient that are patient related: • Medication administration • Nursing treatments • Nursing rounds • Admission, transfer, discharge activities • Patient teaching • Patient communication • Coordination of patient care • Documentation time • Treatment planning • Patient screening (e.g., risk) and assessment Nursing staff included are either staff employed by the facility or temporary staff who are not employed by the facility (contracted/agency staff). Float staff—those are assigned to a unit other than their unit of employment on an as-needed basis—must be counted and reported in the unit's total nursing care hours where they provided direct patient care. Included nursing staff:

	0205 Nursing Hours per Patient Day
	Staff who are counted in the unit's staffing matrix, and Are replaced if they call in sick, and Work hours are charged to the unit's cost center. Excluded nursing staff: Persons whose primary responsibility is administrative in nature. Specialty teams, patient educators, or case managers who are not assigned to a specific unit. Unit secretaries or clerks, monitor technicians, and other with no direct patient care responsibilities (Therapy assistants, student nurses who are fulfilling educational requirements, sitters who either are not employed by the facility or who are employed by the facility, but are not providing typical UAP activities). Unlicensed Assistive Personnel (UAPs): Individuals trained to function in an assistive role to nurses in the provision of patient care, as delegated by and under the supervision of the registered nurse. Typical activities performed by UAPs may include (but are not limited to): taking vital signs, bathing, feeding, dressing patients, assisting patients with transfers, ambulation, or toileting. Included UAPs: nursing assistants, orderlies, patient care technicians/assistants, graduate nurses (not yet licensed) who have completed unit orientation. Mental Health Technicians (MHT): For Psychiatric In-Patient Units ONLY Individuals functioning in an assistive role, for which your facility requires course work or training that is different from UAP. They may be licensed or unlicensed. MHT hours are included in UAP hours when reporting, but their hours are collected separately from UAP hours if persons in this job position also meet the following criteria: • They are engaged in direct care activities greater than 50% time, and • Their position is staffed 24/7 and replaced when they call in sick, and • Their hours are included in the nursing staff budget Data Elements: RN hours (Employee) RN hours (Contract/Agency) LPN/LVN hours (Employee) LPN/LVN hours (Contract/Agency) UAP hours (Employee) UAP hours (Contract/Agency) MHT hours (Employee) MHT hours (Contract/Agency) Year Month Type of Unit
Denominator Statement	Denominator is the total number of patient days for each in-patient unit during the calendar month. Patient days must be from the same unit in which nursing care hours are reported.
Denominator Details	Conceptually, a patient day is 24 hours, beginning the hour of admission. The operational definitions of patient days are described in the section labeled Patient Day Reporting Methods. The total number of patient days for each in-patient unit is collected by the calendar month using one of patient day reporting methods. With the growth in the number of short stay in-patient units, included patients are in-patient

	0205 Nursing Hours per Patient Day
	and short stay patients (i.e., variously called short stay, observation, or same day surgery patients who receive care on a reporting in-patient unit for less than 24 hours). Four (4) Patient Days reporting methods are as follows: Method 1-Midnight Census This is adequate for units that have all in-patient admissions. It is the least accurate method for units that have both in-patient and short stay patients. At the end of the month, sum the daily midnight census counts (the number of patients on the unit at midnight each day). Method 2-Midnight Census + Patient Days from Actual Hours for Short Stay Patients This is an accurate method for units that have both in-patients and short stay patients. The short stay "days" should be reported separately from midnight census and will be summed by NDNQI to obtain patient days. The total daily hours for short stay patients should be summed for the month and divided by 24. Method 3-Patient Days from Actual Hours This is the most accurate method. An increasing number of facilities have accounting systems that track the actual time spent in the facility by each patient. Sum actual hours for all patients, whether in-patient or short stay, and divide by 24. Method 4-Patient Days from Multiple Census Reports Some facilities collect censuses multiple times per day (e.g., every 4 hours or each shift). This method has shown to be as accurate as Method 3. Patient days based on midnight and noon census have shown to be sufficient in adjusting for short stay patients. A sum of the daily average censuses can be calculated to determine patient days for the month on the unit. For all patient day reporting methods, it is recommended that facilities consistently use the same method for a reporting unit over time. Each unit should report patient days using the method that most accurate for the nursing work load. For some hospitals in which the midnight census may be the only available measure of patient census, units with short stay patients should use either Method 2 or Method 3, if feasible. Data Elements: Month Year Patient Days Reporting method Type of Unit Patient days from Midnight census Patient days from actual hours (depending on method selected)
Exclusions	Patient days from some non-reporting unit types, such as Emergency Department, peri-operative unit, and obstetrics, are excluded.
Exclusion details	Patient days must be from the same unit as the nursing care hours. Data regarding nursing care hours in some units (e.g., Emergency Department, peri-operative unit, and obstetrics) have not been collected. Patient days from these types of units are excluded.
Risk Adjustment	Other Each unit is stratified by unit type (e.g., critical care, step down, medical), which is not identical to risk, but may be related. The measure is stratified by unit type to reflect differences in patient populations and acuity. For the hospital level measure a weighted calculation based on standardized scores across unit types is used. Provided in response box S.15a
Stratification	Stratification variables are patient population and unit type. Units are stratified by patient population first and then unit type based on acuity level, age, or type of service provided.

	0205 Nursing Hours per Patient Day
	1. Patient population 1) Adult population: limited to units generally caring for patients over 16 years old. 2) Pediatric population: limited to units generally caring for patients under 18 years old. 3) Neonate population: limited to units caring for newborn infants. 4) Psychiatric population: units caring for patients with psychiatric disorders. 5) Rehabilitation population: limited to distinct acute rehabilitation units providing intensive therapy 5 days/week. 2. Unit types by population 1) Adult population Critical Care Highest level of care, includes all types of intensive care units. Optional specialty designations include: Burn, Cardiothoracic, Coronary Care, Medical, Neurology, Pulmonary, Surgical and Trauma. Step-Down Limited to units that provide care for patients requiring a lower level of care than critical care units and higher level of care than provided on medical/surgical units. Examples include progressive care or intermediate care units. Telemetry alone is not an indicator of acuity level. Medical Units that care for patients admitted to medical services, such as internal medicine, family practice, or cardiology. Optional specialty designations include: BMT (Bone Marrow Transplant), Cardiac, GI, Infectious Disease, Neurology, Oncology, Renal or Respiratory. Surgical Units that care for patients admitted to surgical services, such as general surgery, neurosurgery, or orthopedics. Optional specialty designations include: Bariatric, Cardiothoracic, Gynecology, Neurosurgery, Orthopedic, Plastic Surgery, Transplant or Trauma. Medical-Surgical Combined Units that care for patients admitted to either medical or surgical services. Optional specialty designations include: Cardiac, Neuro/Neurosurgery or Oncology. Critical Access A unit located in a Critical Access Hospital that cares for a combination of patients that may include critical care, medical-surgical, skilled nursing (swing bed) and/or obstetrics. 2) Pediatric population Refer to Adult unit type descriptions for corresponding unit types. Critical care Step-Down Medical Surgical Medical-Surgical Combined 3) Neonate population The three unit types below (Level I, II, and III/IV) are based on the Guidelines for Perinatal Care, 5th Ed., which are used by state certification programs. Level I, II, and III/IV neonatal units are the highest level of infant care provided, and are specified by sequential level of acuity. Well-baby Nursery Level I Continuing Care Level II Intermediate Care

	0205 Nursing Hours per Patient Day
	Level III/IV Critical Care 4) Psychiatric population Adult Units caring for adult patients with acute psychiatric disorders. Child/Adolescent Units caring for children and/or adolescents, predominantly ages 2-18 years old, with acute psychiatric disorders. Geripsych Units caring for elderly patients with acute psychiatric disorders. Other (Behavioral Health, Specialty, Multiple Psychiatric Unit Types) Behavioral Health Units caring for individuals of any age with eating disorders or substance abuse (alcohol and drugs) diagnoses. Specialty Units caring for patients of any age with dual diagnoses (e.g., mental illness and mental retardation, or substance abuse and an additional mental illness diagnosis). Multiple Psychiatric Unit Types Units caring for patients that encompass 3 or more of the above unit types, but for which no one unit type comprises greater than 50% of the entire unit. 5) Rehabilitation population Adult Limited to units generally caring for rehab patients over 16 years old. Optional specialty designations include: Brain Injury/SCI, Cardiopulmonary, Neuro/Stroke and Orthopedic/Amputee Rehab units. Pediatric Limited to units generally caring for rehab patients under 18 years old.
Type Score	Rate/proportion better quality = higher score
Algorithm	Eligible unit identified and selected; input patient days (including method) for each respective unit by month; input nursing care hours for each eligible staff category by month; then perform calculations to produce each of the quarter patient days and quarter nursing care hours by summing monthly values of the 3 months; then divide the quarterly nursing care hours by the quarterly patients days. Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 0204 : Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract) 0190 : Nurse staffing hours - 4 parts 5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: Nurse staffing skill mix and nurse staffing hours - 4 parts are related, not competing measures. Nurse staffing skill mix is also a measure for which the American Nurses Association is the measure steward, and measures a different aspect of nurse staffing

	2726 Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections
Steward	American Society of Anesthesiologists
Description	Percentage of patients, regardless of age, who undergo central venous catheter (CVC) insertion for whom CVC was inserted with all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed
Type	Process
Data Source	Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Registry Measure data was collected from the Anesthesia Quality Institute (AQI) National Anesthesia Clinical Outcomes Registry (NACOR). ASA also reviewed and tested data from the Medicare Limited Data Set Carrier SAF – 5% File No data collection instrument provided No data dictionary
Level	Facility, Clinician : Group/Practice, Clinician : Individual, Clinician : Team
Setting	Hospital/Acute Care Facility
Numerator Statement	Patients for whom CVC was inserted with all elements of maximal sterile barrier technique*, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques** followed Definitions: *Maximal sterile barrier technique includes ALL of the following elements: • cap • mask • sterile gown • sterile gloves • sterile full body drape ** Sterile ultrasound techniques require sterile gel and sterile probe covers
Numerator Details	The ASA has engaged the American Medical Association on making amendments to CPT II Code 6030F to align with the numerator to this measure. We expect to have a response from AMA regarding this amended change by August 2015. CURRENT (DATE OF NQF SUBMISSION: APRIL 2015 CODE) CPT® II Code: 6030F: All elements of maximal sterile barrier technique followed including: cap AND mask AND sterile gown AND sterile gloves AND a large sterile sheet AND hand hygiene AND 2% chlorhexidine for cutaneous antisepsis (or acceptable alternative antiseptics, per current guideline) CPT® II Code: 6030F-1P: Documentation of medical reason(s) for not following all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques during CVC insertion (including increased risk of harm to patient if adherence to aseptic technique would cause delay in CVC insertion) CPT® II Code: 6030F-8P: All elements of maximal sterile barrier technique not followed including: cap AND mask AND sterile gown AND sterile gloves AND a large sterile sheet AND hand hygiene AND 2% chlorhexidine for cutaneous antisepsis (or acceptable alternative antiseptics, per current guideline), reason not otherwise specified PROPOSED FOR CPT II CODE CHANGE (EST. AUGUST 2015 CODE): CPT® II Code: 6030F: All elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed CPT® II Code: 6030F-1P: Documentation of medical reason(s) for not following all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques during CVC insertion (including increased risk of harm to patient if adherence to aseptic technique would cause delay in CVC insertion).

	2726 Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections
	CPT® II Code: 6030F-8P: All elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques not followed, reason not otherwise specified.
Denominator Statement	All patients, regardless of age, who undergo CVC insertion
Denominator Details	36555, 36556, 36557, 36558, 36560, 36561, 36563, 36565, 36566, 36568, 36569, 36570, 36571, 36578, 36580, 36581, 36582, 36583, 36584, 36585, 93503
Exclusions	None The measure includes a denominator exception as indicated by reporting 6030F-1P for the numerator: Documentation of medical reason(s) for not following all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques during CVC insertion (including increased risk of harm to patient if adherence to aseptic technique would cause delay in CVC insertion)
Exclusion details	NA The measure includes denominator exception as indicated by reporting 6030F-1P for the numerator: Documentation of medical reason(s) for not following all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques during CVC insertion (including increased risk of harm to patient if adherence to aseptic technique would cause delay in CVC insertion)
Risk Adjustment	No risk adjustment or risk stratification The measure is not risk-adjusted. Provided in response box S.15a
Stratification	The measure is not stratified.
Type Score	Rate/proportion better quality = higher score
Algorithm	Step 1 - Identify measure events; an insertion of a central venous catheter Step 2 - Determine denominator for calculation - subtract "denominator exclusions" from "denominator statement" Step 3 - Determine numerator for calculation - subtract "denominator exceptions" from "numerator statement" Step 4 - Divide the numerator (determined in Step 3) by denominator (Step 2) Step 5 - Multiply result from Step 4 by 100 to calculate the percentage The measure does not include aggregated data. Risk Adjustment – The measure is not risk-adjusted. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 0139 : National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: The measure is specified for a level of analysis that includes the individual practitioner with the intent of

	2726 Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections
	providing data to clinicians and other health professionals regarding their individual performance. Similar measures exist including the Centers for Disease Control and Prevention's Central line-associated Bloodstream Infection measure (NQF measure 0139) and the Agency for Healthcare Research and Quality's Patient Safety for Selected Indicators Composite measure (NQF measure 0531). These two measures are specified and NQF endorsed for analysis at the facility level. Those measures, although closely associated with and may touch upon this process measure, are respectively an outcome and composite measure. Although ASA welcomes a conversation on harmonization, we do not believe that this measure conflicts or competes with these measures. 5b.1 If competing, why superior or rationale for additive value: The measure does not compete with NQF #0139.

	2729 Timely Evaluation of High-Risk Individuals in the Emergency Department (ED)
Steward	Centers for Medicare & Medicaid Services
Description	Median time from ED arrival to qualified provider evaluation for individuals triaged with a severity level of "immediate" or "emergent" on a 5-level triage system.
Type	Process
Data Source	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record • Hospital electronic health record (EHR) data • For measure calculation, the following EHR data are required: o Emergency Department (ED) Arrival Date and Time o ED Departure Date and Time o Triage Score o Provider Evaluation Time o Provider Credentials (e.g., MD, DO, NP, PA) No data collection instrument provided Attachment Timely_ED_Value_Set_0410_2015.xls
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	The proposed measure is a continuous variable measure. Continuous variable measures do not have a numerator statement. In this section we include the measure observation statement. Median time difference (in minutes) from ED arrival to qualified provider contact for emergency department patients triaged at the two highest-risk levels based on a 5-level triage system (e.g., "immediate" or "emergent").
Numerator Details	The proposed measure is a continuous variable measure. Continuous variable measures do not have a numerator. In this section we include the measure guidance for determining measure observations. The specification provides elements from the clinical electronic record required to calculate the length of time that the patient waited to be seen by a provider (i.e., from ED arrival to Provider Evaluation Time) for each qualifying ED encounter. Reporting requires the median of wait time from all ED encounters for patients with the top two highest-risk triage scores (e.g., “immediate” and “emergent” or Emergency Severity Index (ESI)=1 and ESI=2). Provider contact time is defined by either the face-to-face evaluation of the patient by the provider or the initiation by the provider of specific diagnostic and/or therapeutic orders. For ED admissions with no recorded provider contact, use the departure time as the time of provider contact. For this measure, qualified providers include Medical Doctor (MD), Doctor of Osteopathic Medicine (DO), Physician Assistant (PA) and Advanced Practice Nurse (APN, APRN). Common titles that represent the advanced practice nurse role are Nurse Practitioner (NP), Certified Registered Nurse Anesthetist (CRNA), Clinical Nurse Specialist (CNS), and Certified Nurse Midwife (CNM).
Denominator Statement	The proposed measure is a continuous variable measure. Continuous variable measures do not have a denominator statement. In this section we include the measure population statement. All emergency department encounters for which individuals are triaged at the two highest-risk levels based on a 5-level triage system (e.g., "immediate" or "emergent").
Denominator Details	The proposed measure is a continuous variable measure. Continuous variable measures do not have a denominator. In this section we include guidance for determining the measure population. The proposed measure includes any ED encounter from the facility’s emergency department.

	2729 Timely Evaluation of High-Risk Individuals in the Emergency Department (ED)
	An ED encounter is defined as any encounter where the patient is receiving care or services in the emergency department at the facility. The proposed measure uses a continuous variable. The specification provides elements from the clinical electronic record required to calculate the length of time that the patient waited to be seen by a provider (i.e., from ED arrival to Provider Evaluation Time) for each qualifying ED encounter. Reporting requires the median of wait time from all ED encounters for patients with the top two highest-risk triage scores (e.g., “immediate” and “emergent” or Emergency Severity Index (ESI)=1 and ESI=2).
Exclusions	None
Exclusion details	Not applicable
Risk Adjustment	Other Not applicable Not applicable Provided in response box S.15a
Stratification	The measure observation is stratified by triaged severity level. Stratum 1 - individuals triaged as the highest risk level in a five-level triage system, e.g., severity is "immediate;" Stratum 2 - individuals triaged as second-highest risk level in a five-level triage system, e.g. severity is "emergent."
Type Score	Continuous variable, e.g., average better quality = lower score
Algorithm	Measure Population: All emergency department encounters for which individuals are triaged at the two highest-risk levels based on a 5-level triage system (e.g., “immediate” or “emergent”). Create Measure Population: 1. Identify emergency department (ED) encounters during the measurement period for all patients. 2. For each ED encounter identified in step 1, identify ED arrival time and all records of evaluations by qualified providers. 3. From ED encounters identified in step 1, identify all records with a triage score in the two highest-risk levels of severity (e.g., emergency severity index (ESI)=1 and ESI=2; or “immediate” and “emergent”). Measure Observation 1: Median time difference (in minutes) from ED arrival to qualified provider contact for ED encounters triaged with a severity level of "1-immediate" Measure Observation 2: Median time difference (in minutes) from ED arrival to qualified provider contact for ED encounters triaged with a severity level of "2-emergent" Create Measure Observations: 4. For ED encounters in step 3, identify the first qualified provider evaluation time after ED arrival time. If no qualified provider evaluation recorded, determine the patient departure time from the ED. For time stamps that include seconds, remove the seconds. For example: 15:00:53 would become 15:00. 5. For each encounter in step 4, calculate the difference in minutes from ED arrival time to time of first qualified provider evaluation. 6. Calculate the median time difference in minutes from ED arrival time to time of first qualified provider evaluation for all encounters in Step 5. 7. Calculate the median time difference in minutes from ED arrival time to time of first qualified provider evaluation for all encounters in Step 5 by triage level (e.g., ESI=1 and ESI=2; or “immediate” and “emergent”). 8. Report the median time difference in minutes from ED arrival time to time of first

	2729 Timely Evaluation of High-Risk Individuals in the Emergency Department (ED)
	qualified provider evaluation for triage level ESI=1 or “immediate” for Measure Observation 1. Report the median time difference in minutes from ED arrival time to time of first qualified provider evaluation for triage level ESI=2 or “emergent” for Measure Observation 2. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 0662 : Median Time to Pain Management for Long Bone Fracture 0289 : Median Time to ECG 0290 : Median Time to Transfer to Another Facility for Acute Coronary Intervention 0495 : Median Time from ED Arrival to ED Departure for Admitted ED Patients 0496 : Me 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: See supplement attachment: Timely ED_Supplement_Differences from Competing Measures 5b.1 If competing, why superior or rationale for additive value: There are no competing measures.

	2732 INR Monitoring for Individuals on Warfarin after Hospital Discharge
Steward	Centers for Medicare & Medicaid Services
Description	Percentage of adult inpatient hospital discharges to home for which the individual was on warfarin and discharged with a non-therapeutic International Normalized Ratio (INR) who had an INR test within 14 days of hospital discharge
Type	Process
Data Source	Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy • Hospital electronic health record (EHR) data and Medicare claims data • For measure calculation, the following EHR data are required: o Inpatient (IP) Master Patient file with demographic, diagnostic, and procedural information for inpatients o INR test file with the names, results, and times of INR tests for laboratory testing o Medication administration records (MARs) for warfarin, dabigatran, rivaroxaban, apixaban o Discharge Disposition o Payer • For measure calculation, the following Medicare claims data are required: o Denominator tables o Beneficiary file o Institutional claims (Part A) o Non-institutional claims (Part B) – physician carrier/non-DME No data collection instrument provided Attachment INR_after_Discharge_vaule_set_0410_2015.xls
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	Individuals in the denominator who had an INR test within 14 days of discharge
Numerator Details	INR monitoring is determined using the following CPT code in the Medicare Part A or Part B claims with the service date on the claim as the date that the INR test was conducted. Note: Outpatient INR monitoring claims can be contained in either Part A or Part B Medicare fee-for-service (FFS) claims because Part A claims include hospital outpatient department and Part B claims include physician office. INR Test: Prothrombin time, CPT 85610 The day after the discharge date is counted as day 1 of the 14-day follow-up period.
Denominator Statement	Adult inpatient discharges to home for which the individual had active warfarin therapy within 1 day prior to discharge and the last monitored INR within 7 days of discharge was <=1.5 or >= 4
Denominator Details	This measure was originally designed for use by the Centers for Medicare & Medicaid Services. As a result, the target population for the measure is defined in the following way: 1. Medicare fee-for-service (FFS) beneficiaries, which are identified as having Medicare as the primary payer source with a valid Medicare identification number in the electronic health record (EHR) system. From this target population, the denominator population is defined. The denominator consists of inpatient discharges for those beneficiaries in the target population that meet the following conditions, based on data obtained from the EHR system: 1. Patient is 18 years of age or older at the time of admission.

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	2. The discharge status indicates discharge to home or home health care (see Table 1 below). 3. Individual had active warfarin therapy within 1 day prior to discharge (see Table 2 below). a. Note: To identify individuals who were discharged on warfarin, the current measure algorithm for the denominator requires an administration of warfarin either on the day of discharge or the day prior to discharge. This algorithm is established as a proxy for the "Medication, Discharge" data type in the EHR system and will be replaced by logic ascertaining warfarin on the discharge medication list when "Medication, Discharge" becomes a valid and routinely used EHR data type. 4. The last monitored INR within 7 days of discharge for the individual was <=1.5 or >= 4 (see Table 3 below). To ensure that the last INR test was reflective of the patient's clinical condition near the time of discharge, the last INR test needed to be conducted within the last seven days of the discharge date, counting the discharge date as day 7. Table 1. Status Indicating Discharge to Home 01 – Home/self-care 06 – Home care/home health Table 2. Warfarin Therapy Active Ingredient Generic (Brand) Warfarin (Coumadin, Jantoven) Table 3. LOINC Codes Used to Identify INR Test 34714-6 – INR in Blood by Coagulation assay 38875-1 – INR in Platelet poor plasma or blood by Coagulation assay 46418-0 – INR in Capillary blood by Coagulation assay 52129-4 – INR in Platelet poor plasma by Coagulation assay – post heparin adsorption 6301-6 – INR in Platelet poor plasma by Coagulation assay
Exclusions	The following inpatient discharges are excluded from the denominator. The following exclusion is identified from the Medication Administration Record (MAR) within the patient's EHR. 1) Inpatient discharges for which the individuals received dabigatran, rivaroxaban, or apixaban within one day prior to discharge The following exclusions are identified from Part A and Part B Medicare Administrative Claims. 2) Inpatient discharges for which the individuals are monitoring INR at home 3) Inpatient discharges for which the individuals expired within 14 days post-discharge 4) Inpatient discharges for which the individuals received hospice care within 14 days post-discharge 5) Inpatient discharges for which the individuals had a hospital inpatient admission within 14 days post-discharge 6) Inpatient discharges for which the individuals were admitted to a skilled nursing facility (SNF) within 14 days post-discharge 7) Inpatient discharges for which the end date of the 14-day follow-up period occurs after the end of the measurement period 8) Inpatient discharges for which the individual is not enrolled in Medicare Part A and Part B at the time of discharge and during the 14-day follow-up period post discharge.
Exclusion details	The following exclusion is identified from the Medication Administration Record (MAR) within the patient's EHR. Inpatient discharges for which the individuals received a new oral anticoagulant therapy

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	initiated upon discharge, as identified through Medication Administration Records (MARs), excluded (Table 4). Table 4. New Oral Anticoagulant Active (NOAC) Ingredients Generic (Brand) Dabigatran (Pradaxa) Rivaroxaban (Xarelto) Apixaban (Eliquis) The following exclusions are identified from Part A and Part B Medicare Administrative Claims Administrative Claims Note: The exact variables are dependent on the claims files used for analysis. The variable names below are based on use of HAJI data. When applied to different claims data files, the variable names may change. INR monitoring at home: An individual is determined to be monitoring INR at home, if the individual has a claim with any of the following HCPCS code in the Medicare Part A and B claims (Table 5). Table 5. HCPCS Codes for INR Monitoring at Home G0248 – DEMONSTRATE USE HOME INR MON G0249 – PROVIDE TEST MATS & EQUIP HOME INR G0250 – MD INR TEST REVIEW INTER MGMT Expired: An individual is determined to be expired within 14 days post-discharge if the time (in days) between the discharge date of the encounter and the individual's death date is less than or equal to 14. The death date is identified using the bene_death_dt field in the CMS denominator file. Hospice: An individual is determined to receive hospice care within 14 days post-discharge if the time (in days) between the discharge date of the encounter and the Hse_clm_fron_dt field for the following claim is less than or equal to 14 (Table 6). Table 6. Part A and Part B Codes for Identifying Hospice Admissions Claim Type – Claim Field = Code Value Part A – nch_clm_type_cd = 50 OR Part A – hse_clm_fac_type_cd = 8; and, Part A – hse_clm_srvc_clsfctn_type_cd = 1 or 2 OR Part B – hse_b_plc_srvc_cd = 34 Hospital admission post-discharge: An individual is determined to be admitted to a hospital within 14 days post-discharge if the time (in days) between the discharge date of the encounter and the Hse_clm_fron_dt field for the following claim is less than or equal to 14 (Table 7). Table 7. Part A Code for Identifying Hospital Inpatient Admissions Claim Type – Claim Field = Code Value Part A – hse_clm_fac_type_cd = 1 Admission to SNF: An individual is determined to be admitted to a SNF within 14 days post-discharge if the time (in days) between the discharge date of the encounter and the Hse_clm_fron_dt field for the following claim is less than or equal to 14 (Table 8). Table 8. Part A and Part B Codes for identifying SNF Admissions Claim Type – Claim Field = Code Value Part A – nch_clm_type_cd = 20

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	OR Part A – hse_clm_fac_type_cd = 2; and, Part A – hse_clm_srvc_clsfctn_type_cd = 1 or 2 OR Part B – hse_b_plc_srvc_cd = 31 Definitions of the Claim Fields: - Hse_clm_from_dt: the first date of provider's services rendered - nch_clm_type_cd: the type of claim record being processed - hse_clm_fac_type_cd: the first digit of the type of bill submitted on an institutional claim, which identifies the type of facility that provided the care for the beneficiary - hse_clm_srvc_clsfctn_type_cd: the second digit of the type of bill submitted on an institutional claim, which identifies the type of facility that provided the care for the beneficiary - hse_b_plc_srvc_cd: the place of service, as defined in the Medicare carrier manual for the claim
Risk Adjustment	No risk adjustment or risk stratification Not applicable
Stratification	None
Type Score	Rate/proportion better quality = higher score
Algorithm	The proposed measure is a hybrid measure that utilizes data from both EHR systems and Medicare FFS claims data to calculate the score. The initial patient (target) population is first identified using the Medicare ID from EHR system. The denominator is identified using the EHR system. The exclusions are identified using EHR and administrative claims data. The numerator is dependent on administrative claims because claims data enables us to look across all outpatient setting to determine if INR monitoring was done. Target Population: Medicare FFS beneficiaries, identified as having Medicare as the primary payer source with a valid Medicare identification number in the Electronic Health Record (EHR) system. 1. Determine if the individual is a Medicare fee-for-service (FFS) beneficiary. Medicare FFS beneficiaries are identified as having Medicare as the primary payer source and a valid Medicare identification number. Keep the inpatient discharges for which the individuals are Medicare FFS. Denominator: Adult inpatient discharges to home for which the individual had active warfarin therapy within 1 day prior to discharge and the last monitored INR within 7 days of discharge was <=1.5 or >= 4 Data Sources: EHR and Part A and Part B administrative claims. The steps below are separated based on data source. Electronic Health Record, Steps 1-6 *Note: Step 2 and Step 6 of the denominator logic are established to ensure that the individuals were discharged on warfarin and function as a proxy for the "Medication, Discharge" data type in the EHR system. These two steps will be replaced by logic ascertaining warfarin on the discharge medication list when "Medication, Discharge" becomes a valid and routinely used EHR data type. 1. For all discharges in the target population, determine the individual's age in years. The age is equal to the admission date minus the birth date. Keep the inpatient discharges for which the individuals are at least 18 years of age at admission.

	2732 INR Monitoring for Individuals on Warfarin after Hospital Discharge
	2. Determine if the individual received warfarin during the inpatient stay by identifying all warfarin administrations (including brands: Coumadin and Jantoven). Identify and include the eligible discharges that had warfarin, Coumadin, or Jantoven given on the day of discharge or the day prior to discharge.* 3. From the discharges identified in Step 3, keep those for which the individuals had an INR test performed within 7 days prior to the discharge date. 4. From the discharges in Step 4, keep those with the last INR being non-therapeutic (i.e., INR result <=1.5 or >=4.0). 5. From the discharges in Step 5, keep those for which the individuals were discharged to home or home health care. 6. Exclude discharges for which the individuals received dabigatran, rivaroxaban, or apixaban on the day of discharge or the day prior to discharge.* Administrative Claims, Step 7 7. Using Part A and Part B administrative claims, exclude the following: a) Discharges for which the individuals are monitoring INR at home a. Note: patients that monitor their INR at home are excluded from the denominator because there is no record in the EHR or claims data to confirm that monitoring was done within 14 days of discharge. b) Discharges for which the individuals expired within 14 days post-discharge c) Discharges for which the individuals received hospice care within 14 days post-discharge d) Discharges for which the individuals had a hospital inpatient admission within 14 days post-discharge a. Note: Discharges for which the patient was admitted to any hospital within 14 days post-discharge are excluded to allow an equal follow-up window for all discharges in the denominator. If the patient is admitted during that window, the days allowed for monitoring are shorten. e) Discharges for which the individuals were admitted to a SNF within 14 days post-discharge f) Discharges in which the end date of the 14 days follow-up period occurs after the end of the measurement period g) Discharges for which the individual is not enrolled in Medicare Part A and Part B at the time of discharge and during the 14-day follow-up period post discharge Numerator: Individuals in the denominator who had an INR test within 14 days of discharge Data Source: Part A and Part B administrative claims 1. Using Part A and Part B administrative claims, identify inpatient discharges from the denominator for which the individuals had INR monitoring after the discharge date. 2. For each inpatient discharge identified in Step 1, identify the first INR test performed post-discharge. If the first INR test post-discharge is within 14 days of the discharge date, include the inpatient discharge in the numerator. The day after the discharge date is counted as day 1 of the 14-day follow-up period. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 0556 : INR for Individuals Taking Warfarin and Interacting Anti-Infective Medications 0555 : INR Monitoring for Individuals on Warfarin 0586 : Warfarin_PT/ INR Test 0612 : Warfarin - INR Monitoring

	2732 INR Monitoring for Individuals on Warfarin after Hospital Discharge
	5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact: See Supplement Attachment: INR after Discharge_Supplement_ Differences from Competing Measures 5b.1 If competing, why superior or rationale for additive value: Not applicable; measures noted above are not competing measures as they do not address both the same focus and target population.

	0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism
Steward	Members of this workgroup have provided feedback on key indicator development decisions and methodology, including providing input on the face validity of the revised composite weighting approach. Dr. Andrea Benin, MD Connecticut Children's Medical Cent
Description	N/A
Type	Surgery : Cardiac Surgery, Pulmonary/Critical Care : Critical Care, Surgery : General Surgery, Gastrointestinal (GI) : GI Bleeding, Surgery : Perioperative, Pulmonary/Critical Care, Renal, Surgery, Surgery : Thoracic Surgery, Surgery : Vascular Surgery
Data Source	Hospital/Acute Care Facility PSI90 was developed to provide a simple and transparent single metric that can be used to better understand, communicate and track patient safety in US hospitals. The indicator is comprised of eleven component PSIs which are calculated using readily avail The time period is one year for users with a complete sample of hospital discharges (i.e., "all payer" data). Note that the signal variance parameters assume a one-year time period. PSI03 ICD-9-CM Pressure ulcer diagnosis codes: 7070 DECUBITUS ULCER 70700 PRESSURE ULCER, SITE NOS 70701 PRESSURE ULCER, ELBOW 70702 PRESSURE ULCER, UPR BACK 70703 PRESSURE ULCER, LOW BACK 70704 PRESSURE ULCER, HIP 70705 PRESSURE ULCER, BUTT
Level	PSI90_NQF0531_Evidence_150310.docx
Setting	The patient safety composite measure was developed to summarize patient safety across multiple indicators to monitor performance over time or across regions and populations using a methodology that can be applied at the national, regional, State and provi Note – this table also appears in the supplemental files. Table 1. Reference Population Rate and Distribution of Hospital Performance PSI90 Patient Safety Composite for Selected Indicators Distribution of Hospital-level Observed Rates in Reference Popula
Numerator Statement	Populations at Risk
Numerator Details	PSI03 Exclude cases: • with length of stay of less than 5 days • with a principal ICD-9-CM diagnosis code for pressure ulcer (see above) • with any secondary ICD-9-CM diagnosis codes for pressure ulcer (see above) present on admission and any secondary ICD-9-CM diagnosis codes for pressure ulcer stage III or IV (or unstageable, see above) present on admission • with any-listed ICD-9-CM diagnosis codes for hemiplegia, paraplegia, or quadriplegia • with any-listed ICD-9-CM diagnosis codes for spina bifida or anoxic brain damage • with any-listed ICD-9-CM procedure codes for debridement or pedicle graft before or on the same day as the major operating room procedure (surgical cases only)

	0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism
	• with any-listed ICD-9-CM procedure codes for debridement or pedicle graft as the only major operating room procedure (surgical cases only) • transfer from a hospital (different acute care facility) • transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF) • transfer from another health care facility • MDC 9 (skin, subcutaneous tissue, and breast) • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI06 Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) • for iatrogenic pneumothorax (see above) • with any-listed ICD-9-CM diagnosis codes for chest trauma • with any-listed ICD-9-CM diagnosis codes for pleural effusion • with any-listed ICD-9-CM procedure codes for thoracic surgery • with any-listed ICD-9-CM procedure codes for lung or pleural biopsy • with any-listed ICD-9-CM procedure codes for diaphragmatic repair • with any-listed ICD-9-CM procedure codes for cardiac procedure • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI07 Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for selected infections (as defined by the numerator, see above) • with length of stay less than 2 days • with any-listed ICD-9-CM diagnosis codes for cancer • with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM procedure codes for immunocompromised state • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI08 Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for hip fracture (see above) • where the only operating room procedure is hip fracture repair • where a procedure for hip fracture repair occurs before or on the same day as the first operating room procedure† • with a principal ICD-9-CM diagnosis code for seizure • with a principal ICD-9-CM diagnosis code for syncope • with a principal ICD-9-CM diagnosis code for stroke and occlusion of arteries

	0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism
	• with a principal ICD-9-CM diagnosis code for coma • with a principal ICD-9-CM diagnosis code for cardiac arrest • with a principal ICD-9-CM diagnosis code for poisoning • with a principal ICD-9-CM diagnosis code for trauma • with a principal ICD-9-CM diagnosis code for delirium and other psychoses • with a principal ICD-9-CM diagnosis code for anoxic brain injury • with any-listed ICD-9-CM diagnosis codes for metastatic cancer • with any-listed ICD-9-CM diagnosis codes for lymphoid malignancy • with any-listed ICD-9-CM diagnosis codes for bone malignancy • with any-listed ICD-9-CM diagnosis codes for self-inflicted injury • MDC 8 (diseases and disorders of the musculoskeletal system and connective tissue) • MDC14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI09 Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for perioperative hemorrhage or postoperative hematoma (see above) • where the only operating room procedure is control of postoperative hemorrhage (see above), drainage of hematoma (see above), or a miscellaneous hemorrhage- or hematoma-related procedure (see above) • with any secondary ICD-9-CM diagnosis codes for perioperative hemorrhage or postoperative hematoma (see above) and any-listed ICD-9-CM procedure codes for control of perioperative hemorrhage or evacuation of hematoma or miscellaneous hemorrhage- or hematoma- related procedure occurring before the first operating room procedure • with any-listed ICD-9-CM diagnosis codes for coagulation disorder • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI10 Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for acute renal failure (see above) • with any dialysis procedure (see above) occurs before or on the same day as the first operating room procedure • with a principal ICD-9-CM diagnosis code for (or secondary diagnosis present on admission) acute myocardial infarction • with a principal ICD-9-CM diagnosis code for (or secondary diagnosis present on admission) cardiac arrhythmia • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for cardiac arrest • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for shock • with any a principal ICD-9-CM diagnosis code (or secondary diagnosis present on

	0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism
	admission) for hemorrhage • with any secondary ICD-9-CM diagnosis codes for acute renal failure (see above) and a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for gastrointestinal hemorrhage • with any secondary ICD-9-CM diagnosis codes for acute renal failure (see above) and a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for chronic renal failure • MDC 14 (pregnancy, childbirth and the puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI11 Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for acute respiratory failure (see above) • where the only operating room procedure is tracheostomy • where a procedure for tracheostomy occurs before the first operating room procedure† • with any-listed ICD-9-CM diagnosis codes for neuromuscular disorder • with any-listed ICD-9-CM procedure codes for laryngeal or pharyngeal, nose, mouth or pharynx surgery • with any-listed ICD-9-CM procedure codes involving the face and any-listed ICD-9-CM diagnosis codes for craniofacial anomalies • with any-listed ICD-9-CM procedure codes for esophageal resection • with any-listed ICD-9-CM procedure codes for lung cancer • any-listed ICD-9-CM diagnosis codes for degenerative neurological disorder • MDC 4 (diseases/disorders of respiratory system) • MDC 5 (diseases/disorders of circulatory system) • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI12 Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for deep vein thrombosis (see above) • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for pulmonary embolism (see above) • where a procedure for interruption of vena cava occurs before or on the same day as the first operating room procedure • any procedure code for extracorporeal membrane oxygenation • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI13 Exclude cases:

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	• with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for sepsis (see above) • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for infection • with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM procedure codes for immunocompromised state • with any-listed ICD-9-CM diagnosis codes for cancer • with length of stay of less than 4 days • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI14 Exclude cases: • where the procedure for abdominal wall reclosure (see above) occurs on or before the day of the first abdominopelvic surgery procedure (see above) • with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM procedure codes for immunocompromised state • with length of stay less than two (2) days • MDC 14 (pregnancy, childbirth, and puerperium). • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing) PSI15 Exclude cases: • with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for accidental puncture or laceration during a procedure • MDC 14 (pregnancy, childbirth, and puerperium) • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)
Denominator Statement	PSI03 See Patient Safety Indicators Appendices: Appendix A – Operating Room Procedure Codes Appendix J – Admission Codes for Transfers See attached excel document for ICD-9-CM Hemiplegia, paraplegia, or quadriplegia diagnosis codes ICD-9-CM Spina bifida or anoxic brain damage diagnosis codes ICD-9-CM Debridement or pedicle graft procedure codes PSI06 See attached excel document for ICD-9-CM Chest trauma diagnosis codes ICD-9-CM Pleural effusion diagnosis codes ICD-9-CM Thoracic surgery procedure codes ICD-9-CM Lung or pleural biopsy procedure codes ICD-9-CM Diaphragmatic repair procedure codes

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	ICD-9-CM Cardiac procedure codes PSI07 See Patient Safety Indicators Appendices: Appendix H – Cancer Diagnosis Codes Appendix I – Immunocompromised State Diagnosis and Procedure Codes PSI08 See Patient Safety Indicators Appendices: Appendix G – Trauma Diagnosis Codes Appendix K – Self-Inflicted Injury Diagnosis Codes See attached excel document for ICD-9-CM Hip fracture repair procedure codes ICD-9-CM Seizure diagnosis codes ICD-9-CM Syncope diagnosis codes ICD-9-CM Stroke and occlusion of arteries diagnosis codes ICD-9-CM Coma diagnosis codes ICD-9-CM Cardiac arrest diagnosis code ICD-9-CM Poisoning diagnosis codes ICD-9-CM Delirium and other psychoses diagnosis codes ICD-9-CM Anoxic brain injury diagnosis code ICD-9-CM Metastatic cancer diagnosis codes ICD-9-CM Lymphoid malignancy diagnosis codes ICD-9-CM Bone malignancy diagnosis codes PSI09 ICD-9-CM Coagulation disorder diagnosis codes: 2860 CONG FACTOR VIII DIORD 2861 CONG FACTOR IX DISORDER 2862 CONG FACTOR XI DISORDER 2863 CONG DEF CLOT FACTOR NEC 2864 VON WILLEBRANDS DISEASE 28652 ACQUIRED HEMOPHILIA 28653 ANTIPHOSPHOLIPID ANTIBODY WITH HEMORRHAGIC DISORDER 28659 OT HEM D/T CIRC ANTICOAG 2866 DEFIBRINATION SYNDROME 2867 ACQ COAGUL FACTOR DEFIC 2869 COAGULAT DEFECT NEC NOS 2871 QUALITATIVE PLATELET DEFECTS 28730 PRIMARY THROMBOCYTOPENIA,UNSPECIFIED 28731 IMMUNE THROMBOCYTOPENIC PURPURA 28732 EVANS SYNDROME 28733 CONGENITAL AND HEREDITARY THROMBOCYTOPENIC PURPURA 28739 OTHER PRIMARY THROMBOCYTOPENIA 28741 STTRANSFUSION PURPURA

	0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism
	2875 THROMBOCYTOPENIA UNSPECIFIED 2878 OTHER SPECIFIED HEMORRHAGIC CONDITIONS 2879 UNSPECIFIED HEMORRHAGIC CONDITIONS PSI10 See attached excel document for ICD-9-CM Acute myocardial infarction diagnosis codes ICD-9-CM Cardiac arrhythmia diagnosis codes ICD-9-CM Cardiac arrest diagnosis code ICD-9-CM Shock diagnosis codes ICD-9-CM Hemorrhage diagnosis codes ICD-9-CM Gastrointestinal hemorrhage diagnosis codes ICD-9-CM Chronic renal failure diagnosis codes PSI11 See attached excel document for ICD-9-CM Tracheostomy procedure codes ICD-9-CM Neuromuscular disorder diagnosis codes ICD-9-CM Laryngeal, pharyngeal, nose, mouth and pharynx surgery procedure codes ICD-9-CM Face procedure codes ICD-9-CM Craniofacial anomalies diagnosis codes ICD-9-CM Esophageal resection procedure codes ICD-9-CM Lung cancer procedure codes ICD-9-CM Degenerative neurological disorder diagnosis codes PSI12 ICD-9-CM Interruption of vena cava procedure code: 387 INTERRUPTION OF VENA CAVA ICD-9-CM ECMO procedure code: 3965 EXTRACORPOREAL MEMBRANE OXYGENATION PSI13 See Patient Safety Indicators Appendices: Appendix F – Infection Diagnosis Codes Appendix H – Cancer Diagnosis Codes Appendix I – Immunocompromised State Diagnosis and Procedure Codes PSI14 See Patient Safety Indicators Appendices: Appendix I – Immunocompromised State Diagnosis and Procedure Codes See attached excel document for ICD-9-CM Abdominopelvic surgery procedure codes PSI15 ICD-9-CM Accidental puncture or laceration during a procedure diagnosis code: 9982 ACCIDENTAL PUNCTURE OR LACERATION DURING A PROCEDURE
Denominator Details	Statistical risk model

	0531 Safety : Complications, Safety : Healthcare Associated Infections, Safety, Safety : Venous Thromboembolism
Exclusions	
Exclusion details	Not applicable for the composite. Component measures are risk adjusted. For each component measure, the predicted value for each case is computed using a hierarchical model (logistic regression with hospital random effect) and covariates for gender, age (in 5-year age groups), Modified MS-DRG (MDRG), MDC, transfer in, point of origin not available, procedure days not available and AHRQ comorbidty (COMORB). The expected rate is computed as the sum of the predicted value for each case divided by the number of cases for the unit of analysis of interest (i.e., hospital). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied by the reference population rate.
Risk Adjustment	Detailed risk adjustment specifications for each component of the composite are included in the technical specifications (excel) supplemental files. Ratio better quality = lower score
Stratification	Available in attached Excel or csv file at S.2b
Type Score	No diagram provided Not applicable. Not applicable.
Algorithm	The component measures exclude cases with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing). For the composite, when components are missing, they are imputed to be equal to the population mean (observed / expected = 1). Administrative claims
Copyright / Disclaimer	5.1 Identified measures: Not applicable 5a.1 Are specs completely harmonized? PSI90_Supplemental_Files_150410v02.pdf 5a.2 If not completely harmonized, identify difference, rationale, impact: Agency for Healthcare Research and Quality 5b.1 If competing, why superior or rationale for additive value: Mamatha | Pancholi, PhD | Mamatha.Pancholi@ahrq.hhs.gov | 301-427-1470-

Appendix F: Related and Competing Measures

Comparison of NQF 0097 and NQF 0419, NQF 0553, NQF 0646, NQF 2456

	0097 Medication Reconciliation	0419 Documentation of Current Medications in the Medical Record	0553 Care for Older Adults (COA) – Medication Review	0646 Reconciled Medication List Received by Discharge Patients (Discharges from an Inpatient Facility to Home/Self Care or Any Other Site of Care)	2456 Medication Reconciliation: Number of Unintentional Medication Discrepancies per Patient
Steward	National Committee for Quality Assurance	Centers for Medicare & Medicaid Services	National Committee for Quality Assurance	American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI)	Brigham and Women's Hospital
Brief Description	The percentage of discharges for patients 18 years of age and older for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record by a prescribing practitioner, clinical pharmacist or registered nurse.	Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration	Percentage of adults 66 years and older who had a medication review during the measurement year; a review of all a patient's medications, including prescription medications, over-the-counter (OTC) medications and herbal or supplemental	Percentage of patients, regardless of age, discharged from an inpatient facility (eg, hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home or any other site of care, or their caregiver(s), who received a reconciled medication list at the time of discharge including, at a minimum, medications in the specified categories	This measure assesses the actual quality of the medication reconciliation process by identifying errors in admission and discharge medication orders due to problems with the medication reconciliation process. The target population is any hospitalized adult patient. The time frame is the hospitalization period. At the time of

			therapies by a prescribing practitioner or clinical pharmacist.		admission, the admission orders are compared to the preadmission medication list (PAML) compiled by trained pharmacist (i.e., the gold standard) to look for discrepancies and identify which discrepancies were unintentional using brief medical record review. This process is repeated at the time of discharge where the discharge medication list is compared to the PAML and medications ordered during the hospitalization.
Measure Type	Process	Process	Process	Process	Outcome
Measure Data Source/Tool	Administrative claims, Electronic Clinical Data, Paper Medical Records	Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry	Administrative claims, Electronic Clinical Data, Paper Medical Records	Administrative claims, Electronic Clinical Data : Electronic Health Record, Paper Medical Records	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Healthcare Provider Survey, Other, Paper Medical Records, Patient Reported Data/Survey, Electronic Clinical Data : Pharmacy
Reporting Level	Clinician : Group/Practice,	Clinician : Group/Practice, Clinician : Individual	Health Plan, Integrated Delivery	Facility, Integrated Delivery System	Facility

	Health Plan, Clinician : Individual, Integrated Delivery System		System		
Care Setting	Ambulatory Care : Clinician Office/Clinic	Ambulatory Care : Clinician Office/Clinic	Ambulatory Care : Clinician Office/Clinic, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Ambulatory Care : Ambulatory Surgery Center (ASC), Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Hospital/Acute Care Facility
Numerator	Medication reconciliation conducted by a prescribing practitioner, clinical pharmacist or registered nurse on or within 30 days of discharge. Medication reconciliation is defined as a type of review in which the discharge medications are reconciled with	The Numerator statement for the most recent versions of the measure is as follows (for both the 2015 Claims and Registry version and the 2014 e Measure version): Eligible professional attests to documenting, updating, or reviewing patient´s current medications using all immediate resources available on the date of the encounter. This list must include ALL prescriptions, over-the	At least one medication review conducted by a prescribing practitioner or clinical pharmacist during the measurement year and the presence of a medication list in the medical record.	Patients or their caregiver(s) who received a reconciled medication list at the time of discharge including, at a minimum, medications in the following categories: Medications to be TAKEN by patient: - Continued* Medications prescribed before inpatient stay that patient should continue to take after discharge,	For each sampled inpatient in the denominator, the total number of unintentional medication discrepancies in admission orders plus the total number of unintentional medication discrepancies in discharge orders.

	the most recent medication list in the outpatient medical record.	counters, herbals, vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency, and route		including any change in dosage or directions AND - New* Medications started during inpatient stay that are to be continued after discharge and newly prescribed medications that patient should begin taking after discharge * Prescribed dosage, instructions, and intended duration must be included for each continued and new medication listed Medications NOT to be Taken by patient: - Discontinued Medications taken by patient before the inpatient stay that should be discontinued or held after discharge, AND - Allergies and Adverse Reactions Medications administered during the inpatient stay that caused an allergic reaction or adverse event and were therefore discontinued	
Denominator	All discharges from an in-patient setting for patients who are 18	2015 Claims and Registry Denominator statement: All visits for patients aged 18 years	All patients 66 and older as of the end (e.g., December 31)	All patients, regardless of age, discharged from an inpatient facility (eg,	The patient denominator includes a random sample of all

	years and older.	and older 2014 e Measure Denominator statement: Equals the Initial Patient Population (IPP) The IPP is defined as, "All visits occurring during the 12 month reporting period for patients aged 18 years and older before the start of the measurement period"	of the measurement year.	hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care.	potential adults admitted to the hospital. Our recommendation is that 25 patients are sampled per month, or approximately 1 patient per weekday. So, for example, if among those 25 patients, 75 unintentional discrepancies are identified, the measure outcome would be 3 discrepancies per patient for that hospital for that month.

Comparison of NQF 0419 and NQF 0553, NQF 0554, NQF 0097

	0419 Documentation of Current Medications in the Medical Record	0553 Care for Older Adults (COA) – Medication Review	0554 Medication Reconciliation Post-Discharge (MRP)	0097 Medication Reconciliation
Steward	Centers for Medicare & Medicaid Services	National Committee for Quality Assurance	National Committee for Quality Assurance	National Committee for Quality Assurance
Brief Description	Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known	Percentage of adults 66 years and older who had a medication review during the measurement year; a review of all a patient's medications, including prescription medications, over-the-counter (OTC) medications and herbal	The percentage of discharges during the first 11 months of the measurement year (e.g., January 1–December 1) for patients 66 years of age and older for whom medications were reconciled on or within 30 days of discharge.	The percentage of discharges for patients 18 years of age and older for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record by a prescribing practitioner,

	prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration	or supplemental therapies by a prescribing practitioner or clinical pharmacist.		clinical pharmacist or registered nurse.
Measure Type	Process	Process	Process	Process
Measure Data Source/Tool	Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry	Administrative claims, Electronic Clinical Data, Paper Medical Records	Administrative claims, Electronic Clinical Data, Paper Medical Records	Administrative claims, Electronic Clinical Data, Paper Medical Records
Reporting Level	Clinician : Group/Practice, Clinician : Individual	Health Plan, Integrated Delivery System	Health Plan, Integrated Delivery System	Clinician : Group/Practice, Health Plan, Clinician : Individual, Integrated Delivery System
Care Setting	Ambulatory Care : Clinician Office/Clinic	Ambulatory Care : Clinician Office/Clinic, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Ambulatory Care : Clinician Office/Clinic, Pharmacy	Ambulatory Care : Clinician Office/Clinic
Numerator	The Numerator statement for the most recent versions of the measure is as follows (for both the 2015 Claims and Registry version and the 2014 e Measure version): Eligible professional attests to documenting, updating, or reviewing patient´s current	At least one medication review conducted by a prescribing practitioner or clinical pharmacist during the measurement year and the presence of a medication list in the medical record.	Medication reconciliation conducted by a prescribing practitioner, clinical pharmacist or registered nurse on or within 30 days of discharge.	Medication reconciliation conducted by a prescribing practitioner, clinical pharmacist or registered nurse on or within 30 days of discharge. Medication reconciliation is defined as a type of review in which the discharge medications are

	medications using all immediate resources available on the date of the encounter. This list must include ALL prescriptions, over-the counters, herbals, vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency, and route			reconciled with the most recent medication list in the outpatient medical record.
Denominator	2015 Claims and Registry Denominator statement: All visits for patients aged 18 years and older 2014 e Measure Denominator statement: Equals the Initial Patient Population (IPP) The IPP is defined as, "All visits occurring during the 12 month reporting period for patients aged 18 years and older before the start of the measurement period"	All patients 66 and older as of the end (e.g., December 31) of the measurement year.	Acute or nonacute inpatient discharge during the first 11 months of the measurement year (e.g., January 1 to December 1) for patients who are 66 years and older as of the end of the measurement year.	All discharges from an in-patient setting for patients who are 18 years and older.

Comparison of NQF 0674 and NQF 0101, NQF 0141, NQF 0202

	0674 Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)	0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls	0141 Patient Fall Rate	0202 Falls with Injury
Steward	Centers for Medicare & Medicaid Services	National Committee for Quality Assurance	American Nurses Association	American Nurses Association
Brief Description	This measure reports the	This is a clinical process	All documented falls, with or	All documented patient falls

	percentage of residents who have experienced one or more falls with major injury during their episode of nursing home care ending in the target quarter (3-month period). Major injury is defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma. The measure is based on MDS 3.0 item J1900C, which indicates whether any falls that occurred were associated with major injury. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care.	measure that assesses falls prevention in older adults. The measure has three rates: A) Screening for Future Fall Risk: Percentage of patients aged 65 years and older who were screened for future fall risk at least once within 12 months B) Falls Risk Assessment: Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months C) Plan of Care for Falls: Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months	without injury, experienced by patients on eligible unit types in a calendar quarter. Reported as Total Falls per 1,000 Patient Days. (Total number of falls / Patient days) X 1000 Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients.	with an injury level of minor or greater on eligible unit types in a calendar quarter. Reported as Injury falls per 1000 Patient Days. (Total number of injury falls / Patient days) X 1000 Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients.
Measure Type	Outcome	Process	Outcome	Outcome
Measure Data Source/Tool	Electronic Clinical Data	Administrative claims, Electronic Clinical Data, Paper Medical Records	Electronic Clinical Data, Other, Paper Medical Records	Electronic Clinical Data, Other, Paper Medical Records
Reporting Level	Facility	Clinician : Group/Practice, Clinician : Individual	Facility, Clinician : Team	Facility, Clinician : Team
Care Setting	Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Ambulatory Care : Clinician Office/Clinic, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility

Numerator	The numerator is the number of long-stay nursing home residents who experienced one or more falls that resulted in major injury (J1900C = 1 or 2) on one or more look-back scan assessments during their episode ending in the target quarter (assessments may be OBRA, PPS or discharge). In the MDS 3.0, major injury is defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma.	This measure has three rates. The numerators for the three rates are as follows: A) Screening for Future Fall Risk: Patients who were screened for future fall* risk** at last once within 12 months B) Falls Risk Assessment: Patients who had a risk assessment*** for falls completed within 12 months C) Plan of Care for Falls: Patients with a plan of care**** for falls documented within 12 months. *A fall is defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force. **Risk of future falls is defined as having had had 2 or more falls in the past year or any fall with injury in the past year. ***Risk assessment is comprised of balance/gait assessment AND one or more of the following assessments: postural blood pressure, vision, home fall hazards, and documentation on whether	Total number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) by hospital unit during the calendar month X 1000. Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, adult step-down, adult medical, adult surgical, adult medical-surgical combined, critical access, adult rehabilitation in-patient.	Total number of patient falls of injury level minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the calendar month X 1000. Included Populations: • Falls with Fall Injury Level of “minor” or greater, including assisted and repeat falls with an Injury level of minor or greater • Patient injury falls occurring while on an eligible reporting unit Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation in-patient.

		medications are a contributing factor or not to falls within the past 12 months. ****Plan of care must include consideration of vitamin D supplementation AND balance, strength and gait training.		
Denominator	The denominator is the total number of long-stay residents in the nursing facility who were assessed during the selected target quarter and who did not meet the exclusion criteria.	A) Screening for Future Fall Risk: All patients aged 65 years and older seen by an eligible provider in the past year. B & C) Falls Risk Assessment & Plan of Care for Falls: All patients aged 65 years and older seen by an eligible provider in the past year with a history of falls (history of falls is defined as 2 or more falls in the past year or any fall with injury in the past year).	Denominator Statement: Patient days by hospital unit during the calendar month times 1000. Included Populations: •Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: •Adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, and adult rehabilitation units. •Patients of any age on an eligible reporting unit are included in the patient day count.	

Comparison of NQF 0101 and NQF 0035, NQF 0141, NQF 0202, NQF 0537

	0101 Care for Older Adults (COA) – Medication Review	0035 Fall Risk Management (FRM)	0141 Patient Fall Rate	0202 Falls with Injury	0537 Multifactor Fall Risk Assessment

					Conducted for all Patients who can Ambulate
Steward	National Committee for Quality Assurance	National Committee for Quality Assurance	American Nurses Association	American Nurses Association	Centers for Medicare & Medicaid Services
Brief Description	This is a clinical process measure that assesses falls prevention in older adults. The measure has three rates: A) Screening for Future Fall Risk: Percentage of patients aged 65 years and older who were screened for future fall risk at least once within 12 months B) Falls Risk Assessment: Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months C) Plan of Care for Falls: Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months	Assesses different facets of fall risk management: Discussing Fall Risk. The percentage of adults 75 years of age and older, or 65–74 years of age with balance or walking problems or a fall in the past 12 months, who were seen by a practitioner in the past 12 months and who discussed falls or problems with balance or walking with their current practitioner. Managing Fall Risk. The percentage of adults 65 years of age and older who had a fall or had problems with balance or walking in the past 12 months, who were seen by a practitioner in the past 12 months and who received fall risk intervention from their current practitioner.	All documented falls, with or without injury, experienced by patients on eligible unit types in a calendar quarter. Reported as Total Falls per 1,000 Patient Days. (Total number of falls / Patient days) X 1000 Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients.	All documented patient falls with an injury level of minor or greater on eligible unit types in a calendar quarter. Reported as Injury falls per 1000 Patient Days. (Total number of injury falls / Patient days) X 1000 Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients.	Percentage of home health episodes of care in which patients who can ambulate had a multi-factor fall risk assessment at start/resumption of care.
Measure Type	Process	Process	Outcome	Outcome	Process
Measure	Administrative claims,	Patient Reported	Electronic Clinical Data,	Electronic Clinical Data,	Electronic Clinical

Data Source/Tool	Electronic Clinical Data, Paper Medical Records	Data/Survey	Other, Paper Medical Records	Other, Paper Medical Records	Data
Reporting Level	Clinician : Group/Practice, Clinician : Individual	Health Plan, Integrated Delivery System	Facility, Clinician : Team	Facility, Clinician : Team	Facility
Care Setting	Ambulatory Care : Clinician Office/Clinic, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Ambulatory Care : Clinician Office/Clinic, Hospital/Acute Care Facility	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility	Home Health
Numerator	This measure has three rates. The numerators for the three rates are as follows: A) Screening for Future Fall Risk: Patients who were screened for future fall* risk** at last once within 12 months B) Falls Risk Assessment: Patients who had a risk assessment*** for falls completed within 12 months C) Plan of Care for Falls: Patients with a plan of care**** for falls documented within 12 months. *A fall is defined as a sudden, unintentional	This measure has two rates. Discussing Fall Risk: The number of patients in the denominator who indicated they discussed falls or problems with their current provider. Managing Fall Risk: The number of patients in the denominator who indicated their provider provided fall risk management.	Total number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) by hospital unit during the calendar month X 1000. Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, adult step-down, adult medical, adult surgical, adult medical-surgical combined, critical access, adult rehabilitation in-patient.	Total number of patient falls of injury level minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the calendar month X 1000. Included Populations: • Falls with Fall Injury Level of “minor” or greater, including assisted and repeat falls with an Injury level of minor or greater • Patient injury falls occurring while on an eligible reporting unit Target population is adult acute care inpatient and adult	Number of home health episodes of care in which patients who can ambulate had a multi-factor fall risk assessment at start/resumption of care.

	change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force. **Risk of future falls is defined as having had had 2 or more falls in the past year or any fall with injury in the past year. ***Risk assessment is comprised of balance/gait assessment AND one or more of the following assessments: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months. ****Plan of care must include consideration of vitamin D supplementation AND balance, strength and gait training.			rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation in-patient.	
Denominator	A) Screening for Future Fall Risk: All patients aged 65 years and older seen by an	Each rate has a different denominator. The Discussing Fall Risk	Denominator Statement: Patient days by hospital unit during		

	eligible provider in the past year. B & C) Falls Risk Assessment & Plan of Care for Falls: All patients aged 65 years and older seen by an eligible provider in the past year with a history of falls (history of falls is defined as 2 or more falls in the past year or any fall with injury in the past year).	rate has two denominators: - Adults age 75 and older who had a provider visit in the past 12 months - Adults age 65-74 who had a provider visit in the past 12 months and report either falling or having a problem with balance or walking in the past 12 months. The Managing Falls Risk measure has only one denominator: Adults age 65 and older who had a provider visit in the past 12 months and report either falling or having a problem with balance or walking in the past 12 months.	the calendar month times 1000. Included Populations: •Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: •Adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, and adult rehabilitation units. •Patients of any age on an eligible reporting unit are included in the patient day count.		

Comparison of NQF 0141 and NQF 0202

	0141 Patient Fall Rate	0202 Falls with Injury
Steward	American Nurses Association	American Nurses Association

Brief Description	All documented falls, with or without injury, experienced by patients on eligible unit types in a calendar quarter. Reported as Total Falls per 1,000 Patient Days. (Total number of falls / Patient days) X 1000 Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients.	All documented patient falls with an injury level of minor or greater on eligible unit types in a calendar quarter. Reported as Injury falls per 1000 Patient Days. (Total number of injury falls / Patient days) X 1000 Measure focus is safety. Target population is adult acute care inpatient and adult rehabilitation patients.
Measure Type	Outcome	Outcome
Measure Data Source/Tool	Electronic Clinical Data, Other, Paper Medical Records	Electronic Clinical Data, Other, Paper Medical Records
Reporting Level	Facility, Clinician : Team	Facility, Clinician : Team
Care Setting	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility
Numerator	Total number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) by hospital unit during the calendar month X 1000. Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, adult step-down, adult medical, adult surgical, adult medical-surgical combined, critical access, adult rehabilitation in-patient.	Total number of patient falls of injury level minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the calendar month X 1000. Included Populations: • Falls with Fall Injury Level of “minor” or greater, including assisted and repeat falls with an Injury level of minor or greater • Patient injury falls occurring while on an eligible reporting unit Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation in-patient.
Denominator	Denominator Statement: Patient days by hospital unit during the calendar month times 1000. Included Populations: •Inpatients, short stay patients, observation patients,	Denominator Statement: Patient days by Type of Unit during the calendar month. Included Populations: •Inpatients, short stay patients, observation patients, and

	and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: •Adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, and adult rehabilitation units. •Patients of any age on an eligible reporting unit are included in the patient day count.	same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: •Adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units. •Patients of any age on an eligible reporting unit are included in the patient day count.

Comparison of NQF 0204 and NQF 0190, NQF 0205

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)	0205 Nursing Hours per Patient Day
Steward	American Nurses Association	American Nurses Association

Brief Description	NSC-12.1 - Percentage of total productive nursing hours worked by RN (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.2 - Percentage of total productive nursing hours worked by LPN/LVN (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.3 - Percentage of total productive nursing hours worked by UAP (employee and contract) with direct patient care responsibilities by hospital unit. NSC-12.4 - Percentage of total productive nursing hours worked by contract or agency staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities by hospital unit. Note that the skill mix of the nursing staff (NSC-12.1, NSC-12.2, and NSC-12.3) represent the proportions of total productive nursing hours by each type of nursing staff (RN, LPN/LVN, and UAP); NSC-12.4 is a separate rate. Measure focus is structure of care quality in acute care hospital units.	NSC-13.1 (RN hours per patient day) – The number of productive hours worked by RNs with direct patient care responsibilities per patient day for each in-patient unit in a calendar month. NSC-13.2 (Total nursing care hours per patient day) – The number of productive hours worked by nursing staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities per patient day for each in-patient unit in a calendar month. Measure focus is structure of care quality in acute care hospital units.

Measure Type	Structure	Structure
Measure Data Source/Tool	Management Data, Other	Management Data, Other
Reporting Level	Facility, Clinician : Team	Facility, Clinician : Team
Care Setting	Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility	Behavioral Health/Psychiatric: Inpatient, Hospital/Acute Care Facility, Post Acute/Long Term Care Facility: Inpatient Rehabilitation Facility
Numerator	Four separate numerators are as follows: RN hours – Productive nursing care hours worked by RNs with direct patient care responsibilities for each hospital in-patient unit during the calendar month. LPN/LVN hours – Productive nursing care hours worked by LPNs/LVNs with direct patient care responsibilities for each hospital in-patient unit during the calendar month. UAP hours – Productive nursing care hours worked by UAP with direct patient care responsibilities for each hospital in-patient unit during the calendar month. Contract or agency hours – Productive nursing care hours worked by nursing staff (contract or agency staff) with direct patient care responsibilities for each hospital in-patient unit during the calendar month.	Total number of productive hours worked by nursing staff with direct patient care responsibilities for each hospital in-patient unit during the calendar month.
Denominator	Denominator is the total number of productive hours worked by employee or contract nursing staff with direct patient care responsibilities (RN, LPN/LVN, and UAP) for each hospital in-patient unit during the calendar month.	Denominator is the total number of patient days for each in-patient unit during the calendar month. Patient days must be from the same unit in which nursing care hours are reported.

Comparison of NQF 0353 and NQF 0352, NQF 0351

	0353 Failure to Rescue 30-Day Mortality (risk adjusted)	0352 Failure to Rescue In Hospital Mortality (risk adjusted)	0351 Death among surgical inpatients with serious, treatable complications (PSI 4)

Steward	The Children's Hospital of Philadelphia	The Children's Hospital of Philadelphia	Agency for Healthcare Research and Quality
Brief Description	Percentage of patients who died with a complication within 30 days from admission	Percentage of patients who died with a complications in the hospital.	In-hospital deaths per 1,000 surgical discharges, among patients ages 18 through 89 years or obstetric patients, with serious treatable complications (deep vein thrombosis/ pulmonary embolism, pneumonia, , sepsis, shock/cardiac arrest or gastrointestinal hemorrhage/acut e ulcer). Includes metrics for the number of discharges for each type of complication. Excludes cases transferred to an acute care facility. [NOTE: The software provides

			the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report in-hospital deaths per 1,000 hospital discharges.]
Measure Type	Outcome	Outcome	Outcome
Measure Data Source/Tool	Administrative claims	Administrative claims	Administrative claims
Reporting Level	Population : County or City, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional, Population : State	Population : County or City, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional, Population : State	Facility
Care Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility	Hospital/Acute Care Facility

Numerator	Patients who died with a complication plus patients who died without documented complications. Death is defined as death within 30 days from admission. All patients in an FTR analysis have developed a complication (by definition). Complicated patient has at least one of the complications defined in Appendix B (see attachment and website http://www.research.chop.edu/programs/cor/node/26) . Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission. Comorbidities are defined in Appendix C (see attachment and website http://www.research.chop.edu/programs/cor/node/26) using secondary ICD9 diagnosis codes of the current admission and primary or secondary ICD9 diagnosis codes of previous admission within 90 days of the admission date of the current admission. *When Physician Part B is available, the definition of complications and comorbidities are augmented to include CPT codes	Patients who died with a complication plus patients who died without documented complications. Death is defined as death in the hospital. All patients in an FTR analysis have developed a complication (by definition). Complication patient has at least one of the complications defined in Appendix B (see attachment and website http://www.research.chop.edu/programs/cor/node/26) . Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission. Comorbidities are defined in Appendix C (see attachment and website http://www.research.chop.edu/programs/cor/node/26) using secondary ICD9 diagnosis codes of the current admission and primary or secondary ICD9 diagnosis codes of previous admission within 90 days of the admission date of the current admission. *When Physician Part B is available, the definition of complications and comorbidities are augmented to include CPT codes.	Overall: Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator. [Details for numerator by stratum are included in S.6. Numerator Details]

Denominator	General Surgery, Orthopedic and Vascular patients in specific DRGs with complications plus patients who died in the hospital without complications. Inclusions: adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A at http://www.research.chop.edu/programs/cor/node/26)	General Surgery, Orthopedic and Vascular patients in specific DRGs with complications plus patients in specific General Surgery, Orthopedic and Vascular DRGs who died in the hospital without complications. Inclusions: adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A http://www.research.chop.edu/programs/cor/node/26) .	Overall: Surgical discharges, for patients ages 18 through 89 years or MDC 14 (pregnancy, childbirth, and puerperium), with all of the following: • any-listed ICD-9-CM procedure codes for an operating room procedure; and • the principal procedure occurring within 2 days of admission or an admission type of elective (ATYPE=3); and • meet the inclusion and exclusion criteria for Stratum A (deep vein thrombosis or pulmonary embolism), Stratum B (pneumonia), , Stratum C (sepsis),

			Stratum D (shock or cardiac arrest), or Stratum E (gastrointestinal hemorrhage or acute ulcer) defined below. Surgical discharges are defined by specific DRG or MS-DRG codes. [Denominator details by stratum are included in S.9. Denominator Details]

Comparison of NQF 0687and NQF 0640, NQF 0203

	0687 Percent of Residents Who Were Physically Restrained (Long Stay)	0640 HBIPS-2-Hours of Physical Restraint Use
Steward	Centers for Medicare & Medicaid Services	The Joint Commission

Brief Description	The measure reports the percentage of all long-stay residents who were physically restrained daily during the 7 days prior to the target MDS 3.0 assessment (OBRA, PPS or discharge) during their episode of nursing home care ending in the target quarter (3-month period). Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care.	The total number of hours that all patients admitted to a hospital-based inpatient psychiatric setting were maintained in physical restraint. This measure is a part of a set of seven nationally implemented measures that address hospital-based inpatient psychiatric services (HBIPS-1: Admission Screening for Violence Risk, Substance Use, Psychological Trauma History and Patient Strengths completed, HBIPS-3: Seclusion, HBIPS-4: Multiple Antipsychotic Medications at Discharge, HBIPS-5: Multiple Antipsychotic Medications at Discharge with Appropriate Justification, HBIPS-6: Post Discharge Continuing Care Plan Created and HBIPS-7: Post Discharge Continuing Care Plan Transmitted) that are used in The Joint Commission's accreditation process.
Measure Type	Process	Process
Measure Data Source/Tool	Electronic Clinical Data	Electronic Clinical Data, Paper Medical Records
Reporting Level	Facility	Facility, Population : National
Care Setting	Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient

Numerator	The numerator is the number of long-stay residents with a selected target Minimum Data Set (MDS) assessment (assessments may be OBRA, PPS or discharge) who have experienced daily physical restraint usage during the 7 days prior to the selected assessment, as indicated by MDS 3.0, Section P, Item P0100, subitems B (P0100B – Trunk restraint used in bed), C (P0100C – Limb restraint used in bed), E (P0100E – Trunk restraint used in chair or out of bed), F (P0100F – Limb restraints used in chair or out of bed), or G (P0100G – Chair prevents rising).	The total number of hours that all psychiatric inpatients were maintained in physical restraint
Denominator	The denominator is the total number of all long-stay residents in the nursing facility who have a target OBRA, PPS or discharge MDS 3.0 assessment during the selected quarter and who do not meet the exclusion criteria.	Number of psychiatric inpatient days Denominator basis per 1,000 hours To compute this measure rate, a base of 1000 hours has been applied to total patient days in the denominator (i.e., total patient days are divided by 1000). The purpose of this is to create a smaller denominator number, thus providing a more understandable rate. When multiplied by 1000, this rate measures numerator occurrence per total patient days.

Comparison of NQF2726 and NQF 0139, NQF 0138

	2726 Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections	0139 National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure	0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure

Steward	Centers for Medicare & Medicaid Services	Centers for Disease Control and Prevention	Centers for Disease Control and Prevention
Brief Description	Median time from ED arrival to qualified provider evaluation for individuals triaged with a severity level of "immediate" or "emergent" on a 5-level triage system.	Standardized Infection Ratio (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) will be calculated among patients in bedded inpatient care locations. This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavioral health hospitals.	Standardized Infection Ratio (SIR) of healthcare-associated, catheter-associated urinary tract infections (UTI) will be calculated among patients in bedded inpatient care locations, except level II or level III neonatal intensive care units (NICU. This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavior health hospitals.
Measure Type	Process	Outcome	Outcome
Measure Data Source/Tool	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Other, Paper Medical Records	Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Electronic Clinical Data: Laboratory, Other, Paper Medical Records
Reporting Level	Facility	Facility, Population : National, Population : Regional, Population : State	Facility, Population: National, Population: Regional, Population: State

Care Setting	Hospital/Acute Care Facility	Hospice, Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Other	Behavioral Health/Psychiatric: Inpatient, Hospice, Hospital/Acute Care Facility, Other, Post Acute/Long Term Care Facility: Long Term Acute Care Hospital, Post Acute/Long Term Care Facility: Nursing Home/Skilled Nursing Facility
Numerator	The proposed measure is a continuous variable measure. Continuous variable measures do not have a numerator statement. In this section we include the measure observation statement. Median time difference (in minutes) from ED arrival to qualified provider contact for emergency department patients triaged at the two highest-risk levels based on a 5-level triage system (e.g. "immediate" or "emergent").	Total number of observed healthcare-associated CLABSI among patients in bedded inpatient care locations.	Total number of observed healthcare-associated CAUTI among patients in bedded inpatient care locations (excluding patients in Level II or III neonatal ICUs).
Denominator	The proposed measure is a continuous variable measure. Continuous variable measures do not have a denominator statement. In this section we include the measure population statement. All emergency department encounters for which individuals are triaged at the two highest-risk levels based on a 5-level triage system (e.g. "immediate" or "emergent").	Total number of central line days for each location under surveillance for CLABSI during the data period.	Total number of indwelling urinary catheter days for each location under surveillance for CAUTI during the data period.

Comparison of NQF 2729 and NQF 0290, NQF 0495, NQF 0496, NQF 0662, NQF 0640

	2729 Timely	0290 Median Time to	0495 Median Time	0496 Median Time	0662 Median Time	0640 HBIPS-2-

	Evaluation of High-Risk Individuals in the Emergency Department (ED)	Transfer to Another Facility for Acute Coronary Intervention	for ED Arrival to ED Departure for Admitted ED Patients	from ED Arrival to ED Departure for Discharged ED Patients	to Pain Management for Long Bone Fracture	Hours of Physical Restraint Use
Steward	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	The Joint Commission
Brief Description	Median time from ED arrival to qualified provider evaluation for individuals triaged with a severity level of "immediate" or "emergent" on a 5-level triage system.	Median time from emergency department arrival to time of transfer to another facility for acute coronary intervention.	Median time from emergency department arrival to time of departure from the emergency room for patients admitted to the facility from the emergency department	Median time from emergency department arrival to time of departure from the emergency room for patients discharged from the emergency department	Median time from emergency department arrival to time of initial oral, intranasal or parenteral pain medication administration for emergency department patients with a principal diagnosis of long bone fracture (LBF).	The total number of hours that all patients admitted to a hospital-based inpatient psychiatric setting were maintained in physical restraint. This measure is a part of a set of seven nationally implemented measures that address hospital-based inpatient psychiatric services (HBIPS-1: Admission Screening for Violence Risk, Substance Use, Psychological Trauma History

						and Patient Strengths completed, HBIPS-3: Seclusion, HBIPS-4: Multiple Antipsychotic Medications at Discharge, HBIPS-5: Multiple Antipsychotic Medications at Discharge with Appropriate Justification, HBIPS-6: Post Discharge Continuing Care Plan Created and HBIPS-7: Post Discharge Continuing Care Plan Transmitted) that are used in The Joint Commission's accreditation process.
Measure Type	Process	Process	Outcome	Outcome	Efficiency	Process
Measure Data Source/Tool	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record	Administrative claims, Electronic Clinical Data : Electronic Health Record, Paper Medical Records	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Paper Records	Administrative claims	Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record,	Electronic Clinical Data, Paper Medical Records

					Paper Medical Records	
Reporting Level	Facility	Facility, Population : National	Facility	Facility	Facility, Population : National	Facility, Population: National
Care Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility	Hospital/Acute Care Facility	Hospital/Acute Care Facility	Hospital/Acute Care Facility	Behavioral Health/Psychiatric: Inpatient, Hospital/Acute Care Facility
Numerator	The proposed measure is a continuous variable measure. Continuous variable measures do not have a numerator statement. In this section we include the measure observation statement. Median time difference (in minutes) from ED arrival to qualified provider contact for emergency	Continuous Variable Statement: Time (in minutes) from emergency department arrival to transfer to another facility for acute coronary intervention Included Populations: • ICD-9-CM Principal Diagnosis Code for AMI as defined in Appendix A, OP Table 6.1, and • E/M Code for emergency department encounter as defined in Appendix A, OP Table 1.0a, and • Patients discharged/transferred to a short-term general hospital for inpatient care, to a Federal healthcare facility, or to a Critical Access Hospital, and	Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients admitted to the facility from the emergency department.	Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.	Time (in minutes) from emergency department arrival to time of initial oral, intranasal or parenteral pain medication administration for emergency department patients with a diagnosis of a (long bone) fracture.	The total number of hours that all psychiatric inpatients were maintained in physical restraint

	department patients triaged at the two highest-risk levels based on a 5-level triage system (e.g. "immediate" or "emergent").	• Patients not receiving Fibrinolytic Administration as defined in the Data Dictionary, and • Patients with Transfer for Acute Coronary Intervention as defined in the Data Dictionary				
Denominator	The proposed measure is a continuous variable measure. Continuous variable measures do not have a denominator statement. In this section we include the measure population statement. All emergency department encounters for which individuals are triaged at the	Time (in minutes) from emergency department arrival to transfer to another facility for acute coronary intervention.	Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients admitted to the facility from the emergency department.	Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.	N/A Measure is a continuous variable.	Number of psychiatric inpatient days Denominator basis per 1,000 hours To compute this measure rate, a base of 1000 hours has been applied to total patient days in the denominator (i.e., total patient days are divided by 1000). The purpose of this is to create a smaller denominator number, thus providing a more understandable rate. When multiplied by

	two highest-risk levels based on a 5-level triage system (e.g. "immediate" or "emergent").					1000, this rate measures numerator occurrence per total patient days.

Comparison of NQF 2732 and NQF 0555, NQF 0556, NQF 0556, NQF 0586

	2732 INR Monitoring for Individuals on Warfarin after Hospital Discharge	0555 INR Monitoring for Individuals on Warfarin	0556 INR for Individuals Taking Warfarin and Interacting Anti-Infective Medications	0586 Warfarin_PT/INR Test
Steward	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	Resolution Health, Inc.
Brief Description	Percentage of adult inpatient hospital discharges to home for which the individual was on warfarin and discharged with a non-therapeutic International Normalized Ratio (INR) who had an INR test within 14 days of hospital discharge	Percentage of individuals 18 years of age and older with at least 56 days of warfarin therapy who receive an International Normalized Ratio (INR) test during each 56-day interval with warfarin	Percentage of episodes with an International Normalized Ratio (INR) test performed three to seven days after a newly started interacting anti-infective medication for individuals receiving warfarin	This measure identifies the percentage of patients taking warfarin during the measurement year who had at least one PT/INR test within 30 days after the first warfarin prescription in the measurement year
Measure Type	Process	Process	Process	Process
Measure Data Source/Tool	Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy	Administrative claims, Electronic Clinical Data : Pharmacy	Administrative claims, Electronic Clinical Data : Pharmacy	Administrative claims, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy
Reporting	Facility	Clinician : Group/Practice,	Health Plan, Integrated	Population : County or City,

Level		Health Plan, Integrated Delivery System, Population : State	Delivery System, Population : State	Clinician : Group/Practice, Health Plan, Clinician : Individual, Integrated Delivery System
Care Setting	Hospital/Acute Care Facility	Ambulatory Care : Clinician Office/Clinic	Ambulatory Care : Clinician Office/Clinic	Ambulatory Care : Clinician Office
Numerator	Individuals in the denominator who had an INR test within 14 days of discharge	The number of individuals in the denominator who have at least one INR monitoring test during each 56-day interval with active warfarin therapy.	Number of episodes in the denominator with an INR test performed three to seven days after the start date of an anti-infective medication	Patients in the denominator who had a PT/INR test within 30 days after the first warfarin claim during the measurement year Time Window: See below
Denominator	Adult inpatient discharges to home for which the individual had active warfarin therapy within 1 day prior to discharge and the last monitored INR within 7 days of discharge was <=1.5 or >= 4	Individuals at least 18 years of age as of the beginning of the measurement period with warfarin therapy for at least 56 days during the measurement period.	Number of episodes with a newly started interacting anti-infective medication with an overlapping days' supply of warfarin.	Patients who are taking warfarin during the measurement year Time Window: See below

Appendix G: Pre-Evaluation Comments

Comments received as of May 20th, 2015.

Topic	Commenter	Comment
0101: Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls	Submitted by Ms. Jenny Beam	We are recommending that Nursing Home and Assisted Living patient be removed from the denominator. To meet PQRS submission deadlines ULP Department of Family & Geriatric Medicine had to view records from the five Nursing Homes and Assisted Living facilities where our providers attend. The majority of these Nursing Home and Assisted Living Facilities do not utilize Electronic Medical Records (EMR) and/or are not integrated with our EMR. We have no authority to mandate other institutions implement an EMR. The process of gathering the needed information to accurately report this measure created an undue burden on our practice and staff. The 2014 PQRS audit required three weeks and three staff doing manual chart review at the five facilities. Approximately 450 hours of staff time. With staff gathering data, they were unable to attend to clinic patients and duties. Further, if the patient is still in the facility, the patient's chart is readily accessible at the nurse's station; however if the patient is deceased or has been discharged, the chart may be in medical records or in medical records storage. Once the chart(s) are located, identifying the PQRS measures in the patient's chart is extremely difficult. For example, when we see a patient admitted to the Nursing Home for rehabilitation, our providers in many instances are not their Primary Care Physician. Thus we do not benefit from any enhanced payment to the PCP of record and do not receive additional compensation from the facility to compensate for the administrative effort needed to supply the additional data requested. In many of these cases a complete medical history with blood work (LDL, HbA1c), smoking status, ECHO ejection fraction values, preventive screenings (mammogram, colonoscopy, influenza and pneumococcal immunizations) is not present in the chart. Add to this struggle, issues with handwriting, torn papers, etc…and you see that a hardship exists that we may not be able to overcome in the future. Submitting on behalf of a comprehensive internal review team.
0097: Medication Reconciliation Post-	Submitted by Ms. Jenny Beam	We are recommending that Nursing Home and Assisted

Topic	Commenter	Comment
Discharge		Living patient be removed from the denominator. To meet PQRS submission deadlines ULP Department of Family & Geriatric Medicine had to view records from the five Nursing Homes and Assisted Living facilities where our providers attend. The majority of these Nursing Home and Assisted Living Facilities do not utilize Electronic Medical Records (EMR) and/or are not integrated with our EMR. We have no authority to mandate other institutions implement an EMR. The process of gathering the needed information to accurately report this measure created an undue burden on our practice and staff. The 2014 PQRS audit required three weeks and three staff doing manual chart review at the five facilities. Approximately 450 hours of staff time. With staff gathering data, they were unable to attend to clinic patients and duties. Further, if the patient is still in the facility, the patient's chart is readily accessible at the nurse's station; however if the patient is deceased or has been discharged, the chart may be in medical records or in medical records storage. Once the chart(s) are located, identifying the PQRS measures in the patient's chart is extremely difficult. For example, when we see a patient admitted to the Nursing Home for rehabilitation, our providers in many instances are not their Primary Care Physician. Thus we do not benefit from any enhanced payment to the PCP of record and do not receive additional compensation from the facility to compensate for the administrative effort needed to supply the additional data requested. In many of these cases a complete medical history with blood work (LDL, HbA1c), smoking status, ECHO ejection fraction values, preventive screenings (mammogram, colonoscopy, influenza and pneumococcal immunizations) is not present in the chart. Add to this struggle, issues with handwriting, torn papers, etc…and you see that a hardship exists that we may not be able to overcome in the future. Suiting on behalf of a comprehensive internal review team.
0531: Patient Safety for Selected Indicators (PSI90)	Submitted by Jill Sage	The American College of Surgeons has concerns regarding PSI-12: Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate, which is a measure included in the PSI-90 composite. We urge AHRQ to consider the exclusion of trauma patients from "hospital acquired" DVT. Due to the nature of injury due to trauma, trauma patients are at high risk for DVT, even when aggressive preventative measures are taken. Because of this, trauma centers have been

Topic	Commenter	Comment
		vigilant in the detection of DVT by routinely screening trauma patients with duplex ultrasound scans of the lets. It is common that DVT is not present on admission because it could take days for the thrombosis to develop following trauma. Consequently, there appears to be high rates of DVT due to early identification of calf vein thrombosis which can result in the unintended consequence of unfairly penalizing trauma centers when PSI-12 is included in a pay-for-performance program, such as the Hospital Value-based Purchasing Program. This problem is well documented, and there is currently a national multi-center study on DVT and PE in trauma patients across seventeen Level-1 trauma centers. Detailed information available upon request.
2732: INR Monitoring for Individuals on Warfarin after Hospital Discharge	Submitted by Matt Austin, PhD	We support the general concept of Measure 2732; however, we do believe the measure could be strengthened with the following changes: Consider changing the denominator definition for clarity. Change: had active warfarin therapy within 1 day prior to discharge and the last monitored INR within 7 days of discharge was <=1.5 or >= 4 To: had a dose of warfarin during either the calendar day prior to discharge or the calendar day of discharge, and the last monitored INR within 7 days of discharge was <=1.5 or >= 4 or no INR was obtained within 7 days of discharge. Suggest revising the upper bound to INR >= 5, as a INR >=4 is not that high. Concerns with making the discharge hospital accountable for patient follow-up, as patients will not show for appointments and can be difficult to reach (e.g., phone disconnected). This metric will "punish" poor performing hospitals based on the 14 days post discharge - a time period that the hospital may not have direct responsibility for the patient. Therefore, this metric will provide an incentive for institutions to exclude patients from this metric by discharging them on one of the "new" oral anticoagulants. Is this good or a potential negative unintended consequence? Given that this is a safety metric, the metric detail should

Topic	Commenter	Comment
		not have used the dangerous abbreviation NOAC to refer to Dabigatran (Pradaxa), Rivaroxaban (Xarelto) and Apixaban (Eliquis). NOAC has been interpreted as "No anticoagulation" leading to medication errors. A better abbreviation is: TSOAC target specific oral anticoagulants. Does the INR that is collected have to be in the hospital's EHR for measurement? This may not always occur as patients transition to other systems (and other EHRs) post-discharge. The exclusion criteria included SNFs – If this measure is designed to enhance quality, it is unclear why these vulnerable patients would be excluded from the measurement?
2723: Wrong-Patient Retract-and-Reorder (WP-RAR) Measure	Submitted by Matt Austin, PhD	We support the general concept of Measure 2723; however, we do believe the measure could be strengthened with the following changes: Some normal workflows will reliably produce false positives. For example, a surgical intern entering pre-op orders on all patients scheduled for the OR the next day may enter NPO orders on all of them in a short period of time. If one of the cases is canceled or postponed, that patient's NPO order will be retracted, and the next patient's NPO order will meet the RAR criteria. 76% positive predictive value (section 1.b.2) for the measure in a single institution study with 223 events identified by the RAR criterion may be an acceptable test characteristic at baseline, but as the prevalence of wrong patient orders decreases the positive predictive value will decrease. Effort to improve the specificity of the measure will make its value more enduring. The point that details of the order such as final dose need not match is important, because the system may automatically calculate a weight-based dose. There are inconsistencies in the denominator definition. S.7. Denominator Statement reads "All patients," while S.9. Denominator Details reads "All electronic orders." We suggest the concept of analyzing this rate at the order session level, rather than at the patient level or at the order level.

Topic	Commenter	Comment
		One possible unintended consequence of automatically tracking WP-RAR is it may deter self-reporting. Although self-reporting is not reliable, we may still need to encourage care providers to continue reporting WP-RAR via this method. It will be useful to understand the root cause as perceived by the reporter. We also may want to capture the RAR's outside of the 10 minute window, as these outliers could be a significant near miss event.
0531: Patient Safety for Selected Indicators (PSI90)	Submitted by Matt Austin, PhD	Our concerns with the PSI-90 composite measure (Measure 0531) include: Concerns with potential surveillance bias with some of the component PSIs that make-up PSI90 General concerns with the positive-predictive value of measures derived from administrative data, relative to clinical data Limitations with risk-adjustment models based on administrative data, including patient-level risk factors and comorbidities
0352: Failure to Rescue In-Hospital Mortality (risk adjusted)	Submitted by Suzana Quick, RN, BSN, CPPS, CPHQ,	Failure to rescue does not always result in death. Many times these patients end up in the ICU in vegetative states from anoxia but do not die within 30 days. This is a very general measure (death) and to be meaningful, need some tightening up. Happy to help.

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