NATIONAL QUALITY FORUM

Patient Safety – Complications Endorsement Maintenance: Phase II

DRAFT TECHNICAL REPORT FOR VOTING

October 18, 2012

Contents

Patient Safety – Complications Endorsement Maintenance: Phase II

DRAFT TECHNICAL REPORT

Introduction

Americans are exposed to more preventable medical errors than patients in most other industrialized nations. It's estimated that preventable errors cost the United States $17-$29 billion per year in healthcare expenses, lost worker productivity, and disability. These costs are passed on in a number of ways—premiums, taxes, lost work time and wages, and health threats, to name a few. Proactively addressing medical errors and improving patient safety will protect patients from harm and lead to more affordable, effective, and equitable care.

Measuring preventable medical errors and other elements of patient safety activities are vital to understanding the scope of the problem, and for organizations and providers to implement effective solutions. However, measuring patient safety and associated outcomes is a challenge because of issues of accurate data capture, and objective evidence demonstrating the effectiveness of interventions that reduce errors rates.

The Patient Safety Measures - Complications Endorsement Maintenance project was designed to develop and maintain performance measures related to hospital and other facility-based safety. It was executed in two phases, each addressing specific complication-related domains. The first phase focused on medication safety, venous thromboembolism, surgery, and care coordination, while the second phase focused on falls, pressure ulcers, healthcare associated infections, and mortality. The Complications project built on the work an earlier Patient Safety Measures project launched in 2009, which focused on healthcare-associated infections and radiation safety, among other issues. The evidence behind both existing and new measures was closely scrutinized, where several measures that did not meet objective evidence or importance criteria were not recommended for continued endorsement. Composite and outcome measures and measures sensitive to the needs of vulnerable populations, including racial/ethnic minorities and Medicaid populations, were also a priority.

Measure Evaluation

On June 14-15, 2012 the Patient Safety - Complications Steering Committee evaluated 4 new measures and 16 measures undergoing maintenance review against NQF's standard evaluation criteria. To facilitate the evaluation, the Committee and candidate standards were divided into two workgroups for preliminary review of the measures against the evaluation sub-criteria prior to consideration by the entire Steering Committee. The Committee's discussion and ratings of the criteria are summarized in the evaluation tables beginning on page 8.

PATIENT SAFETY - COMPLICATIONS SUMMARY

	MAINTENANCE	NEW	TOTAL
Measures under consideration	17	4	21
Measures withdrawn from consideration	3	2	5
Measures Recommended	12	2	14
Not recommended	2	0	2
Reasons for Not Recommending	**Importance – 2**		2

Overarching Issues

During the Steering 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:

Common Definitions

Among related measures the Committee noted the lack of standardized terminology, such as the medical definition of a fall. Because this varied between the submitted measures, the Committee encouraged measure developers in the future to work together to create common definitions within the field by the next maintenance cycle. This will improve the usability of and comparability across the measures.

Current Evidence and Relationship to Outcomes

The Committee expressed its preference for measures that provide clear and direct evidence of a proximal relationship between a process measure and an important outcome. In addition, Committee members agreed that future measurement efforts should move more toward outcome measures rather than process measures. Ensuring the rigor of the evidence to support each measure was also highlighted. Particularly for measures undergoing maintenance, where there was close scrutiny on whether sufficient evidence existed to justify re-endorsement. For process of care measures, discussions centered on whether what was being measured, such as a clinical assessment or other intervention, was itself associated with differences in patient care outcomes. This concern was also reflected in the evaluation and underlying rationale for supporting specific measures and combining interdependent measures together.

Combining Measures

The Committee discussed combining or "pairing" several measures, where it was recommended in several instances that two or more measures should be reported together. The reasoning was there seemed to be more scientific merit in reporting a group of interdependent measures than reporting each singly. For example, during the review of measures focused on falls and pressure ulcers, the Committee noted that several measures submitted by the same developer should be combined to highlight the sequence of care. The Committee requested that measures *0101: Falls Screening for future fall risk*, *1730: Falls: Risk assessment for falls* and *1733: Falls Plan of Care for Falls*, submitted by the National Committee for Quality Assurance (NCQA), be combined to create one measure with three separate rates. This would be designed to give a complete picture of screening, risk assessment and plans of care because the numerator of the screening for future fall risk is designed to be used as the denominator for the assessment for falls and plan of care measures. Similarly, the Committee recommended that measures *0538: Pressure ulcer prevention included in plan of car*e, *0539: Pressure ulcer prevention implemented during short term episodes of care* and *0540: Pressure ulcer risk assessment conducted*, submitted by the Centers for Medicare and Medicaid Services (CMS), also be combined to create a single measure comprised of three separate rates measuring assessment, plans of care and the implementation of care for pressure ulcers based upon similar logic. They surmised that some of the measures' individual utility and evidence-base were limited but when taken together would have a greater ability to effect change. After the in-person meeting, both NCQA and CMS submitted the combined measures. Consequently, one "consolidated" falls measure submitted by NCQA (*0101: Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls*) was recommended for endorsement, while the two previously stand-alone measures (1730 and 1733) that were ultimately rolled into measure 0101 were withdrawn from consideration by the developer. Similarly, one "consolidated" pressure ulcer measure from CMS (*0538: Pressure Ulcer Prevention and Care*) was recommended for endorsement, while the two measures rolled into measure 0538 (0539 and 0540) were withdrawn by the developer.

Discussion of Related and Competing Measures

The Committee reviewed a number of previously endorsed measures that had been identified as related and potentially competing in the areas of falls and pressure ulcers. In general, the Committee viewed existing measures as related but not directly competing, since none of the measures had precisely the same focus and target population. This is further discussed in each of the falls and pressure ulcer measure evaluation summaries. However, because several of the measures were related, the Committee recommended that in the future harmonized measures that apply across populations, settings, and care transitions would be developed.

Usability

Concerns were raised surrounding the usability of measures that relied on voluntary reporting, such as measures that required patients or providers to report falls without injury, such as measure *0141: Patient Fall Rate*. While this information would be useful to monitor for internal quality improvement, it may be less applicable for public accountability. The information presented through these types of measures may not include all incidents and as a result they may not accurately reflect care. However, the Committee believed that tracking these measures generally should be considered important since they may help in identifying gaps in care, and developing interventions.

Recommendations for Future Measure Development

During their discussions the Committee identified numerous areas where additional measure development was needed:

- Measures should extend to settings outside the hospital, such as post-acute care and extended care facilities, specifically nursing homes.
- Measures should focus on best practices of health care delivery, specifically interventions that have been shown to result in improved outcomes.
- Current measures examine nursing hours and workload, but in the future, measures should be stratified by direct patient care nursing hours and non-direct patient care nursing hours.
- Longer term follow-up of patients is needed to determine the effects of care and interventions as opposed to only focusing on shorter-term outcomes.
- Voluntary patient ~~S~~surveys should be used more to evaluate the care patients received related to treatment and follow-up.
- ~~•~~ Organizational measures should examine the culture of patient safety.
- Outcome measures should examine social factors in the prevention and treatment of falls, focusing on community level measurement.
- Falls across the care continuum should be addressed. These metrics should include patient assessment, plan of care, intervention, and outcomes, and should take into account care across various settings, such as inpatient, outpatient, ambulatory surgical centers, and home health.
- Further measures are needed that focus on complications linked to surgical site infections (including cesarean sections) and outcomes.
- Measures are needed that are easy to understand and meaningful to consumers

Measure Evaluation Summary

Measures recommended

Measures not recommended

Measures withdrawn from consideration

Measures recommended

0035 Fall risk management

Submission | **Specifications**

Description: a) 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.
b) 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.
Numerator Statement: This measure has two rates. The numerator for the discussing falls rate is the number of older adults who talked with their doctor about falling or problems with balance or walking. The numerator for the managing falls risk rate is the number of older adults who report having their provider suggest an intervention to prevent falls or treat problems with balance or walking.
Denominator Statement: Each rate has a different denominator. The Discussing Falls measure has two denominators: adults age 75 and older who had a provider visit in the past 12 months and 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.
Exclusions: N/A
Adjustment/Stratification: No risk adjustment or risk stratification N/A N/A
Level of Analysis: Clinician : Individual, Health Plan, Population : National
Type of Measure: Process
Data Source: Patient Reported Data/Survey
Measure Steward: National Committee for Quality Assurance

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-12; M-7; L-1; I-0** 1b. Performance Gap: **H-7; M-13; L-0; I-0** 1c. Evidence: **Y-16; N-4**

Rationale:

- The Committee stated that it was important to measure patient perceptions about whether they were queried about falls and/or had an intervention as this measure does. The Committee agreed that medical literacy, which they defined as the patient's ability to understand and recall interactions with their provider, is a critical issue and could be used to drive improvement.
- There is a significant performance gap. In the most recent data available from 2009, only 32.4% of patients indicated that their doctor queried them about whether they had a fall or a problem with gait or balance within the previous year. Additionally, 58.7% of patients indicated that they had been queried regarding a treatment or intervention.
- The measure is based on a recommendation from the American Geriatrics Society (AGS) that physicians should ask older adults if they had a fall annually or a problem with gait or balance. Evidence indicates that the first step of a falls intervention is asking patients about their risks and intervening in high-risk populations to reduce the risk of falls

0035 Fall risk management

- In the future the Committee requested that the developer consider creating a falls outcome measure at the health plan level.

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-2; M-15; L-2; I-1** 2b. Validity**: H-3; M-16; L-1; I-0**
<u>Rationale:</u>

- Reliability is assessed through a signal-to-noise ratio within the health plan and reevaluated every two to three years by the developer. They also examine the distribution of performance across health plans as well as the number of health plans that cannot report on this measure due to a sample size requirement of at least 100 patients. Additionally, audits are conducted every year of the survey vendors to ensure that they are appropriately fielding the survey.
- The Committee questioned the measure's reliability since dementia was not listed as an exclusion and the measure was based on patient's self-reporting. The developer explained that dementia was not included as an exclusion because in the survey, whether the patient was assessed can also be reported by a healthcare proxy, such as a family member.
- The measure has undergone extensive cognitive testing to ensure that patients understand the survey. It is available in several different languages, including Spanish and Chinese.
- The measure is not risk-adjusted since it's used at the health plan level and sufficient differences have not been demonstrated between health plan populations. Moreover, risk-adjustment is typically not considered necessary or appropriate for process measures.

3. Usability: H-5; M-14; L-1; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
<u>Rationale</u>:

- This is a patient-reported measure collected through the Health Outcomes Survey. It has been used in the Stars program, which has been used as CMS's rating system for Medicare advantage plans since 2009.

4. Feasibility: H-8; M-11; L-1; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
<u>Rationale</u>:

- The Committee expressed concern that the measure could be burdensome if the patient had to be queried at every visit by every provider within a year. However, the developer clarified that the measure would be used by health plans to assess whether patients were queried annually about falls by *any* provider and was not designed to measure whether *every* provider asked about falls at every visit. Furthermore, since patients may not differentiate between a primary care physician and a specialist, the measure does not differentiate the type of provider that may query the patient about falls. Ultimately, the goal of this measure is to allow health plans to influence provider behavior and reduce falls, by making fall risk assessment a measured priority.
- The survey is also structured to minimize the burden to patients and facilities. It asks two broad

questions, focused on whether a provider helped patients manage their risk and prevent falls in the future, in order to reduce the expense of printing and limit confusion among patients.

5. Related and Competing Measures

- The Committee determined that the following falls measures were related but not competing:
  0035: Fall risk management
  0101: Falls: Screening, risk-assessment, and plan of care to prevent future falls
  0141: Patient fall rate
  0202: Falls with injury
  0266: Patient fall; and,
  0537: Multifactor fall risk assessment conducted in patients 65 and older

  Measure *0035* was considered unique since it focused on a self-reported patient survey of their experience within a health plan. The Committee agreed that it was important to measure patient perception.

Steering Committee Recommendation for Endorsement: Y-20; N-0

Public & Member Comment:

Comments included:

- The measure should involve an all-or-none principle instead of incorporating individual numerators and denominators.

  Developer response: Thank you very much for your comment. We would like to clarify that the measure is not a composite measure as defined by NQF and the two rates do not use the same denominator. The first rate addresses whether health care providers discussed falls or problems with gait or balance with consumers. Many of these consumers will have no history of falls and/or balance/gait problems and therefore follow-up care is not necessary. The second rate addresses whether health care providers provided follow-up care for those individuals who had a fall or problem with gait or balance. Having the two rates separated (as opposed to an all or nothing measure) provides health plans with the adequate information to identify where a quality problem is occurring (i.e. are consumers not being asked about falls/balance and gait problems OR are consumers with identified falls/balance and gait problems not being provided appropriate follow-up care).

- The issue of falls extends beyond a medical setting and should encompass broad based interventions at the family, circle of contacts, and community level.

  Developer response: NCQA agrees falls risk management is not just a medical issue. Many very successful falls risk interventions are offered in the community, and we agree additional measures would be useful to evaluate the effectiveness of falls risk management at the community level. This measures is designed for use in a health plan and therefore is focused solely on the medical care a health can be held accountable for. We agree the HOS survey is not an appropriate tool to evaluate targeted interventions at the community level.

Committee response: The Committee was satisfied with the developer's responses, and reaffirmed its recommendation of measure 0035 as specified. Additionally, the SC is interested in further exploration of

0035 Fall risk management
community-level measures and has included this in the draft report as an area of future measure development, but believes that this measure is an important factor in gauging provider performance.

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 fall risk (2 or more falls in the past year or any fall with injury in the past year) at least once within 12 months
B) Multifactorial Risk Assessment for Falls:
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 to Prevent Future 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) Multifactorial Falls Risk Assessment: Patients at risk* of future fall** who had a multifactorial risk assessment*** for falls completed within 12 months
C) Plan of Care to Prevent Future Falls: Patients at risk* of future fall** with a plan of care**** for falls prevention 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 defined as at a minimum 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.
***Plan of care is defined as at a minimum consideration of appropriate assistance device 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) Multifactorial Falls Risk Assessment & Plan of Care to Prevent Future Falls: All patients aged 65 years and older 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) seen by an eligible provider 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 considered exclusion to this measure.
Adjustment/Stratification: No risk adjustment or risk stratification N/A N/A
Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Clinician : Team
Type of Measure: Process
Data Source: Administrative claims
Measure Steward: National Committee for Quality Assurance **Other organizations:** This measure was developed with the cooperation of the American Geriatrics Society, the National Committee for Quality Assurance and the American Medical Association.

0101 Falls: Screening, risk-assessment, and plan of care to prevent future falls

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-12; M-7; L-1; I-0** 1b. Performance Gap: **H-11; M-9; L-0; I-0** 1c. Evidence: **Y-15; N-5**

<u>Rationale</u>:

- The Committee agreed that when the three separate measures were combined they would have the greatest impact by measuring the entire continuum of care for fall prevention: screening for falls annually, conducting a multifactorial risk assessment and implementing a plan of care.
- According to data from the Physician Quality Reporting System (PQRS) in 2008 and 2009 the performance rates for screening for future fall risk is 44%, multifactorial risk assessments is 88.82% and plans of care to prevent future falls is 86.80%.
- The developer noted that in the future the measure will be updated to incorporate any changes in guidelines from the American Geriatrics Society (AGS), United States Preventative Services Task Force (USPSTF) and the measure's advisory panel.

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-5; M-15; L-0; I-0** 2b. Validity**: H-4; M-16; L-0; I-0**

<u>Rationale:</u>

- The Committee expressed concern that the measure only included interventions related to gait and balance issues and excluded other risk factors for falls, such as medications. The developer explained that the measure was designed to apply to a broad population and focused on gait and balance issues since these are the strongest recommendations from the AGS guidelines to reduce the risk of falls.
- The measure's reliability was tested through manual and electronic chart abstraction at four practice sites. Inter-rater reliability was then used to compare the abstracted data with the data derived from claims for percent agreement. The overall agreement for future fall risk was 98.56%, while multifactor risk assessment and plan of care were both 100% agreement.
- Potential threats to validity were tested by analyzing the frequency and variability of patient and medical reasons for exclusions across providers.

3. Usability: H-7; M-13; L-1; I-0

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

<u>Rationale</u>:

- The three combined measures are used in PQRS and are publicly reported through the CMS website.

4. Feasibility: H-8; M-13; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

<u>Rationale</u>:

- The Committee noted that a measure focused on documentation may be burdensome to providers, but this may decrease since it is in the process of being e-specified for electronic medical records.

0101 Falls: Screening, risk-assessment, and plan of care to prevent future falls

5. Related and Competing Measures

- The Committee determined that the following falls measures were related but not competing:
  0035: Fall risk management
  0101: Falls: Screening, risk-assessment, and plan of care to prevent future falls
  0141: Patient fall rate
  0202: Falls with injury
  0266: Patient fall; and,
  0537: Multifactor fall risk assessment conducted in patients 65 and older

  Measure *0101* was considered unique since it involved screening for falls annually, conducting a multifactorial risk assessment and implementing a plan of care. It is measured at the clinician level to gauge provider treatment, rather than at the health plan level as measure *0035*. It is applicable across settings and utilizes administrative claims data.

Steering Committee Recommendation for Endorsement: Y-21; N-0

Public & Member Comment:
Comments included:

- The measure may not result in an improvement in patient outcomes and may become a "checkbox" measure. Patient-reported data would be a better source of performance information.
  Developer response: Thank you for your comment. NCQA believes the two measures (0035 and 0101) are complementary and provide valuable information from different perspectives. Measure 0101 assesses provider report of clinical processes for all patients at risk of a future falls and is not subject to many of the limitations of the similar patient-reported measures (0035) such as recall bias, non-response bias and proxy bias. The use of these two measures together provides an important insight into where quality gaps exist.

- The issue of falls extends beyond a medical setting and should encompass broad based interventions at the family, circle of contacts, and community level.
  Developer response: Thank you for you comment. THE USPSTF recommends that falls prevention can be achieved through many settings, community and medical based. The purpose of this measures is to evaluate falls risk management interventions for which a health care provider can be held accountable, therefore the focus of the measure is management and referral which occurs in an ambulatory care office visit. The falls prevention interventions highlighted in your comment (referral to PT or Tai Chi) all count towards the numerator for the third rate in the measure (follow up plan of care documented). This rate assesses the proportion of patients at risk for future falls who received (1) information about balance, strength, and gait training exercises OR referral to an exercise program (tai chi included) AND (2) Consideration of appropriate assistance device OR referral for evaluation of an appropriate assistance device (PT referral included).

Committee response: The Committee agreed that patient-reported data is an important element of falls-related measurement efforts. However, provider data is also a key component, and helps to ensure a fuller picture of falls prevention activities and understanding by the patient. The Committee reaffirmed its recommendation of measure 0101 for endorsement and supported broad based interventions for falls being noted as a measure gap.

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 and Unassisted Falls per 1000 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.
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.
•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: Other Stratification is by unit type (e.g., critical care, step down, medical), which is not identical to risk, but may be related. N/A Stratification by unit type:
Adult In-patient Patient Population
Limited to units generally caring for patients over 16 years old.

- 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.
Rehabilitation In-patient Patient Population

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.

- 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.

Level of Analysis: Clinician : Team

Type of Measure: Outcome

Data Source: Electronic Clinical Data, Other, Paper Records

Measure Steward: American Nurses Association

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-18; M-1; L-0; I-0** 1b. Performance Gap: **H-10; M-9; L-0; I-0** 1c. Evidence: **Y-19; N-0**

<u>Rationale</u>:

- This measure will provide benchmarks for falls research, and allow comparisons across facilities and help evaluate interventions to reduce falls. Ultimately, measuring all falls will be useful in designing interventions that reduce overall falls risk.
- This unit was a small medical-surgical unit that had 6 falls in one month and only 50 patient days. First quarter National Database of Nursing Quality Indicators (NDNQI) data in 2011 indicated that the range of falls varied across and within unit types from 1.24 per patient day in the adult critical care setting to 6.64 per patient day in the adult rehabilitation. The maximum fall rate was 54.71/1000 patient days, which occurred in a small medical-surgical unit that had 6 falls in one month and only 50 patient days.
- Seven studies have found a significant indirect relationship between some aspect of nurse staffing and fall rate or injury fall rate, indicating that it may be able to be improve through quality improvement efforts.

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-3; M-11; L-3; I-2** 2b. Validity**: H-0; M-15; L-4; I-1**

<u>Rationale:</u>

- Reliability is based on the consistency of agreement between raters and a group of experts and found a high rate of agreement of 85% on the classification of falls.
- Validity is based on the sensitivity and specificity of fall identification and found a 91% sensitivity agreement in identifying falls and 95.7% specificity agreement in identifying non-falls.
- The Committee expressed concern that validity testing centered on whether falls were correctly coded and not whether the fall rate was accurately captured through voluntary reporting.
- <u>In the future the Committee requested the measure include the type of fall (accidental, anticipated or unaniticipated fall) and further specify preventable or unpreventable.</u>

0141 Patient fall rate

3. Usability: H-5; M-8; L-6; I-1

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

Rationale:

- About one-third of hospitals nationwide are reporting on this measure. Yet, since it is based on voluntary reporting it may be more useful for internal quality improvement purposes rather than accountability.
- More recently the trend has been for smaller facilities, with less than 100 beds, to start reporting on this measure.

4. Feasibility: H-4; M-15; L-1; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- Data are collected through incident reports, which are increasingly but not exclusively electronic. The American Nurses Association (ANA) has a highly standardized set of training materials, quality assurance protocols and feedback from the users for data collection. Reporters must pass an online test before they can enter data. Specifications are underway for use as an EHR measure.
- Since the measure is voluntarily reported, it is susceptible to reporting error, specifically the underreporting of falls, particularly those where there is no injury. In addition, using the measure in pay-for-performance programs may impact voluntary data collection efforts.
- A Committee member identified an unintended consequence of measuring falls in inpatient units, which could encourage patient immobility or the use of restraints as mechanisms for prevention.

5. Related and Competing Measures

- The Committee determined that the following falls measures were related but not competing:
  - *0035: Fall risk management*
  - *0101 Falls: Screening, risk-assessment, and plan of care to prevent future falls*
  - *0141: Patient fall rate*
  - *0202: Falls with injury*
  - *0266: Patient fall; and,*
  - *0537: Multifactor fall risk assessment conducted in patients 65 and older*

  They agreed that measure *0141* was unique, since it is an outcome measure that reports falls within a facility through the NDNQI.

Steering Committee Recommendation for Endorsement: Y-14; **N-6**

*This measure is paired with measure *0202: Falls with injury* since they provide complimentary information regarding the number of falls and the number of falls with injury within a facility.

0141 Patient fall rate

Public & Member Comment:

Comments included:

- The measure is reported as a rate based on patient day and not by patient admission. Consumers may find it easier to interpret the measure if it reflects how long they will stay in the hospital.

  Developer response: Thank you for your comments. Instead of calculating rates per patient admission, NDNQI uses patient days as the denominator because a patient's fall risk is roughly proportional to the length of stay in the hospital—e.g., a patient staying 30 days would be much more likely to fall than a patient staying 1 day, all else being equal. Similarly, a unit with 30 admissions and 300 patient days in a month would be expected to have a higher fall rate than a unit with 30 admissions and 30 patient days. By dividing by patient days, we can meaningfully compare units with different patient volumes.

- Falls should be also be addressed within the care continuum.

  Developer response: Thank you very much for your comments. We agree that measures across the care continuum are needed, including a common fall definition across the continuum.

- Standardizing benchmarks for comparison is important but needs to be balanced with potentially small numbers of patients that can lead to greater variation in the data collected.

  Developer response: Thank you for your comments. Regarding comparisons: NDNQI provides member hospitals with quarterly national comparison data by unit type and several hospital characteristics. Because we stratify our staffing data to account for various levels of patient acuity, our main stratification is by unit type (e.g., adult or pediatric critical care, step down, medical, surgical, combined medical-surgical, and adult rehabilitation in-patient). NDNQI also classifies units by sub-specialties where possible. However, some of the subspecialties do not have enough units enrolled to provide stable national comparison data. In addition to unit type, the stratifications can be done by facility bed size, teaching status, Magnet(R) Designation, Metropolitan status, census division, state, case mix index, and hospital specialty type (e.g. pediatric, psychiatric). Regarding your comment about reliability and small numbers, it is true that fall rates on units with very low patient volume will be susceptible to large month-to-month fluctuations (e.g., spiking from zero to a seemingly high fall rate due to a single fall occurring). Small units can get more reliable estimates by computing the fall rate across several months. We provide quarterly comparison of information on a calendary year quarter.

Committee response:

The Committee was satisfied with the developer's responses, and reaffirmed its recommendation of measure 0141 for endorsement as specified. However, the Committee also recognized the value of making measures more meaningful to consumers and acknowledged the importance of public understanding. Additionally, addressing falls on the care continuum was noted as an area of measure gaps.

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.
•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: Other Stratification is by unit type (e.g., critical care, step down, medical), which is not identical to risk, but may be related. N/A Stratification by unit type:
Adult In-patient Patient Population
Limited to units generally caring for patients over 16 years old.
- 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.

0202 Falls with injury

- 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.

Rehabilitation In-patient Patient Population

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.

- 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.

Level of Analysis: Clinician : Team

Type of Measure: Outcome

Data Source: Electronic Clinical Data, Other, Paper Records

Measure Steward: American Nurses Association

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

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

1a. Impact: **H-19; M-0; L-0; I-0** 1b. Performance Gap: **H-13; M-7; L-0; I-0** 1c. Evidence: **Y-19; N-0**

<u>Rationale</u>:

- Falls are one of the most common adverse events in hospitals, which occur to patients in acute care settings at a rate of 2-5 falls per 1000 patient days.
- First quarter NDNQI data in 2011 indicated that the greatest opportunity for improvement was within critical access units, which had 1.33 total injurious falls per patient day. The maximum injurious fall rate was 31.49/1000 patient days. This unit was a small ICU that had 3 injury falls in the quarter. The next highest rate was 12.34/1000 patient days. The smallest opportunity for improvement was in adult critical care units, which had 0.28 injury falls per patient day.
- Eighteen studies have examined patient fall rates and nursing characteristics/staffing at the unit level. Most of these studies noted the relationship between staffing and patient fall rates.

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-6; M-12; L-2; I-0** 2b. Validity**: H-3; M-15; L-2; I-0**

<u>Rationale:</u>

- The Committee stated that this measure may be easier to capture than measure *0141: Patient Fall Rate*, since it includes injurious falls, which are better documented.
- Reliability and validity were tested through three different methods: a) site coordinator interviews to identify core processes and key personnel involved in data collection; b) video reviews of fall scenarios to assess consistency, sensitivity and specificity; and, c) an online, written fall injury scenario to determine inter-rater reliability and appropriately predict the severity of injurious falls. The site coordinator interviews found no difference between hospital type and found limited differences based on hospital size and teaching status. The results of the video falls scenario was rated for consistency between the expert and direct care providers, demonstrating high agreement for almost all scenarios within a range of -9% to +7% differences. The online falls scenario had an Intraclass Coefficient (ICC of 0.85 for 13 scenarios, with two discarded due to wide variance.

0202 Falls with injury

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

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

Rationale:

- About one-third of hospitals nationwide report on this measure. Yet, since it is based on voluntary reporting it may be more useful for internal quality improvement purposes rather than public accountability.
- This measure is reported publicly in Colorado and Massachusetts. Additional data are available through Leapfrog on 39 states.

4. Feasibility: H-9; M-11; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- Data are collected through incident reports, which are increasingly but not exclusively electronic. The ANA has a highly standardized set of training materials, quality assurance protocols and feedback from the users for the collection of data. Reported must pass an online test before they can enter data. Specifications are underway for an EHR based measure.
- Since the measure is voluntarily reported, it is susceptible to reporting errors involving the underreporting of falls. In addition, using the measure in pay-for-performance programs may impact voluntary reporting of data.
- A Committee member identified an unintended consequence of measuring falls in inpatient units, which could encourage patient immobility or the use of restraints as mechanisms for prevention.

5. Related and Competing Measures

- The Committee determined that the following falls measures were related but not competing:
  - *0035: Fall risk management*
  - *0101: Falls: Screening, risk-assessment, and plan of care to prevent future falls*
  - *0141: Patient fall rate*
  - *0202: Falls with injury*
  - *0266: Patient fall; and,*
  - *0537: Multifactor fall risk assessment conducted in patients 65 and older*

  They agreed that measure *0202* was unique since it reports falls within a facility through the National Database of Nursing Quality Indicators (NDNQI).

Steering Committee Recommendation for Endorsement: Y-19; **N-1**

*This measure is paired with measure *0141: Patient fall rate* since they provide complimentary information regarding the number of falls and the number of falls with injury within a facility.

Public & Member Comment:

Comments included:

- The measure does not take into account that studies have demonstrated patients in rehabilitation settings may have higher fall rates due to cognitive impairment and lower staffing ratios. Additionally,

collecting information on sub-specialty analysis for patient populations (such as stroke, brain injury, etc) may be useful.

Developer response: Thank you for your comments. Using NDNQI data, we have found the inpatient rehabilitation unit (N = 514 units) injury fall rates to be: mean (SD) = 1.91 (1.36); 25th percentile = 0.00; median = 0.93; and 75th percentile = 1.69. NDNQI provides member hospitals with quarterly national comparison data by unit type and several hospital characteristics. Because we stratify our staffing data to account for various levels of patient acuity, our main stratification is by unit type (e.g., adult or pediatric critical care, step down, medical, surgical, combined medical-surgical, and adult rehabilitation in-patient). NDNQI also classifies rehabilitation units by sub-specialties, such as brain injury/SCI, Orthopedic/ amputee, neuro/ stroke, cardiopulmonary, and none. However, some of the subspecialties do not have enough units enrolled to provide stable national comparison data. In addition to unit type, the stratifications can be done by facility bed size, teaching status, Magnet(R) Designation, Metropolitan status, census division, state, case mix index, and hospital specialty type (e.g. pediatric, psychiatric). Further, rehabilitation units that also report nursing care hours to NDNQI would receive nursing hours per patient day and skill mix, along with comparison data. We encourage site coordinators and staff members at NDNQI hospitals to consider more than just fall rate when thinking about improvement. These factors include staffing; nursing characteristics such as education, certification, experience; rate of fall risk assessment; recency of risk assessment; whether prevention protocols are in place; and so forth.

- This measure may be susceptible to an under reporting bias and the reliability could be affected by small numbers of patients.

  Developer response: Thank you for your comments. Regarding your comment about reliability, it is true that fall rates on units with very low patient volume will be susceptible to large month-to-month fluctuations (e.g., spiking from zero to a seemingly high fall rate due to a single fall occurring). Small units can get more reliable estimates by computing the fall rate across several months.

- The measure is reported as a rate based on patient day and not by patient admission. Consumers may find it easier to interpret the measure if it reflects how long they will stay in the hospital. Falls should be assessed within the care continuum.

  Developer response: Thank you for your comments. As part of the falls (0141) and falls with injury (0202) measures, NDNQI also collects whether a fall risk assessment was done, which risk assessment scale was used, time since last risk assessment, whether a fall prevention protocol was in place, and if physical restraints were in use. Hospitals can use this information to determine, unit by unit, if risk assessment and care management are being done.
  We use patient days as the denominator because a patient's fall risk is roughly proportional to the length of stay in the hospital—e.g., a patient staying 30 days would be much more likely to fall than a patient staying 1 day, all else being equal. Similarly, a unit with 30 admissions and 300 patient days in a month would be expected to have a higher fall rate than a unit with 30 admissions and 30 patient days. By dividing by patient days, we can meaningfully compare units with different patient volumes.

Committee response: The Committee recognized that the measure stratifies results based on specialty units, including rehabilitation and accepted that the developer could not further differentiate by complexity of the patient diagnosis within the unit. They also recognized the value of making measures more meaningful to consumers and acknowledged the importance of public understanding. The Committee reaffirmed their recommendation of measure 0202 for endorsement. Addiionally, addressing falls on the care continuum was also noted as an area of measure gaps.

0266 Patient fall

Submission | **Specifications**

Description: Percentage of Ambulatory Surgical Center (ASC) admissions experiencing a fall in the ASC.
Numerator Statement: ASC admissions experiencing a fall in the ASC.
Denominator Statement: All ASC admissions.
Exclusions: ASC admissions experiencing a fall outside the ASC.
Adjustment/Stratification: No risk adjustment or risk stratification None This measure is not stratified
Level of Analysis: Facility
Type of Measure: Outcome
Data Source: Paper Records
Measure Steward: Ambulatory Surgical Centers Quality Collaborative **Other organizations:** No additional organizations participated in measure development.

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

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

1a. Impact: **H-4; M-8; L-5; I-1** 1b. Performance Gap: **H-; M-10; L-7; I-2** 1c. Evidence: **Y-13; N-6**

Rationale:

- The measure reinforces the importance of reporting falls and provides an opportunity to benchmark fall rates in ASCs. The Committee agreed that due to high patient turnover rates in ASCs, capturing information on falls may highlight providing patients with appropriate recovery time before discharge.
- The Committee questioned the performance gap, citing the low incidence of falls in ASCs noting that patient fall rates varied from 0-0.93%.
- There are over 100 studies that address patient safety topics related to falls incidence, falls risk assessment and falls prevention. However, few studies focus on ASCs and measuring the incidence of falls is considered a key aspect of quality 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: **H-3; M-8; L-8; I-0** 2b. Validity**: H-0; M-11; L-6; I-2**

Rationale:

- Reliability testing involved a convenience sample of 22 ASCs selected for retrospective chart auditing and found error rates for the numerator and denominator of zero.
- Validity testing involved respondents using a questionnaire to rate characteristics of the measure and demonstrated a high level of agreement.
- The measure captures information on patients from admission to discharge. The Committee indicated that measuring falls outside the ASC after discharge may present an opportunity for improvement because this is where many falls may occur; however, this is currently an exclusion. The developer explained that the measure was defined from admission to discharge, since intake procedures and the structure of ASCs vary by facility. It was suggested that in the future capturing post-discharge information could be an opportunity for quality improvement to help identify practices to reduce fall rates after discharge from an ASC.

- The Committee also agreed that the measure could be further strengthened by differentiating between preventable and non-preventable falls and whether the fall resulted in harm. The developer indicated that they are looking at definitions of injury and severity levels in the future but suggested that even falls without injury should still be captured.

3. Usability: H-2; M-10; L-6; I-1
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
Rationale:

- CMS will begin using this measure for public reporting in October 2012. All ASC's providing care to Medicare patients will report on it at the facility level using a claims-based reporting process. The developer indicated that eventually reporting may involve all payers and all patients, but will begin with Medicare patients to lower the burden.

4. Feasibility: H-3; M-14; L-2; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
Rationale:

- Data on falls are currently being collected through occurrence reports, which CMS believed was less burdensome than chart abstraction.

5. Related and Competing Measures

- The Committee determined that the following falls measures were related but not competing:
  0035: Fall risk management
  0101: Falls: Screening, risk-assessment, and plan of care to prevent future falls
  0141: Patient fall rate
  0202: Falls with injury
  0266: Patient fall; and,
  0537: Multifactor fall risk assessment conducted in patients 65 and older

  They agreed that measure *0266* was unique, since it is the only outcome measure in the NQF portfolio to focus on falls in ASCs. They stated that the patient population was distinctive and falls in ASCs occur for different reasons than in other settings.

Steering Committee Recommendation for Endorsement: Y-12; N-7
Rationale

Public & Member Comment:
Comments included:

- The measure could be expanded beyond ambulatory care, to include inpatient and outpatient settings. ***Developer response:*** We thank the commenter for their support of capturing patient falls. The mission of the ASC Quality Collaboration is to develop quality measures appropriate to the outpatient surgical setting. The NQF portfolio includes measures that examine falls in other care settings.

Committee response: The Committee was satisfied with the developer's response, and reaffirmed its

0266 Patient fall
recommendation of measure 0266 as specified. Addressing falls across settings was noted as an area of measure gaps.

0537 Multifactor fall risk assessment conducted in patients 65 and older

Submission | **Specifications**

Description: Percentage of home health episodes of care in which patients 65 and older had a multi-factor fall risk assessment at start/resumption of care.
Numerator Statement: Number of home health episodes of care in which patients 65 and older 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's age was less than 65 at the time of assessment.
Adjustment/Stratification: No risk adjustment or risk stratification N/A - process measure. N/A - measure not stratified.
Level of Analysis: Facility
Type of Measure: Process
Data Source: Electronic Clinical Data
Measure Steward: Centers for Medicare and Medicaid Services **Other organizations:** Abt Associates, Inc.
Case Western Reserve University
University of Colorado at Denver, Division of Health Care Policy and Research

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

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

1a. Impact: **H-8; M-7; L-2; I-2** 1b. Performance Gap: **H-3; M-13; L-3; I-0** 1c. Evidence: **Y-14; N-5;**

Rationale:

- There is significant variation in falls risk assessments among providers, indicating that a more frequent assessment could reduce the rates of falls in older adults who receive home health services. However, the average agency had a relatively high compliance rate of 95%.
- The Committee agreed that the evidence cited by the developer was well-articulated and the measure targeted a vulnerable group of patients with significant morbidity from falls. Although fall rates in home health care may not be well documented, fall rates within nursing homes create a compelling argument for measurement in the home. The only study specific to home health patients reported an annual fall rate of 28.5%.

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-7; M-11; L-1; I-0** 2b. Validity**: H-2; M-15; L-1; I-0**

Rationale:

- At least 75% of agencies have a reliability score greater than .966 indicating that performance can be distinguished between agencies.
- The Committee suggested that in the future the measure could be expanded to include patients under 65. The developer agreed that this population would benefit from falls risk assessments.

3. Usability: H-6; M-8; L-5; I-0

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

0537 Multifactor fall risk assessment conducted in patients 65 and older

Rationale:

- The measure is currently publicly reported for agencies that have 20 episodes or more on the Medicare Home Health Compare website.

4. Feasibility: H-9; M-10; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- Data are collected through OASIS, and submitted electronically.

5. Related and Competing Measures

- The Committee determined that the following falls measures were related but not competing:
  - *0035: Fall risk management*
  - *0101: Falls: Screening, risk-assessment, and plan of care to prevent future falls*
  - *0141: Patient fall rate*
  - *0202: Falls with injury*
  - *0266: Patient fall; and,*
  - *0537: Multifactor fall risk assessment conducted in patients 65 and older*

  They agreed that measure *0537* was unique, since *it* applies to home health and is sufficiently different from other environments. They stated that the patient population was distinctive and falls resulted for different reasons than in other settings.

Steering Committee Recommendation for Endorsement: Y-16; N-3

Public & Member Comment:

Comments included:

- The measure is a checkbox measures and should be expanded beyond the 65 and older population, to include patients 18 and over.

  Developer response: Thank you for your comment. In our initial submission, we included all adult patients to whom OASIS applied, but the previous panel did not endorse the measure for the <65 population because of concerns about the body of evidence for community dwelling adults less than 65. We and the current NQF Committee agree that this measure would be valuable for patients of all ages in home health care. We will pursue expanding the measure when it is next re-evaluated for NQF endorsement in 2015.

- Falls should be assessed within the care continuum.

  Developer response: Thank you for your comment. We concur and look forward to working with NQF to identify cross-setting measures.

Committee response: The Committee agreed that a measure applicable to all ages would be preferable; the Committee supported the developer's proposed effort to expand the measure before its next endorsement review. Addressing falls on the care continuum was noted as an area of measure gaps.

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 during Short Term Episodes of Care: Percentage of short term 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 during Short Term Episodes of Care: 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 during Short Term Episodes of Care: 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 during Short Term Episodes of Care: 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: No risk adjustment or risk stratification N/A - process measure N/A - not stratified
Level of Analysis: Facility
Type of Measure: Process
Data Source: Electronic Clinical Data : Electronic Health Record
Measure Steward: Centers for Medicare and Medicaid Services Other organizations: Acumen LLC
Abt Associates, Inc.
Case Western Reserve University
University of Colorado at Denver, Division of Health Care Policy and Research

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

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

1a. Impact: **H-10; M-8; L-1; I-0** 1b. Performance Gap: **H-2; M-11; L-6; I-0** 1c. Evidence: **Y-16; N-4**

Rationale:

- The Committee discussed recommending measures *0538: Pressure ulcer prevention included in plan of care*, *0539: Pressure ulcer prevention implemented during short term episodes of care*, and *0540: Pressure ulcer risk assessment conducted* separately; however, they determined that combining the

measures into one measure with three distinct rates would be more useful. The combination would then link the assessment, plan and implemention of care for pressure ulcers, while also reinforcing the importance of reporting on each step in care. Following the meeting, the developer was able to combine the measures into *0538: Pressure Ulcer Plan of Care.*

- There was concern about whether measure *0540* reflected a standard of care (i.e., there was no performance gap) and would not improve outcomes. Yet, it was included with the other measures as part of the treatment process focused on pressure ulcers for home health care.
- The developer stated that high performance on the measure should be encouraged and indicated that patients were being appropriately treated.
- Although the developer noted a limited body of evidence for pressure ulcers in the home healthcare setting, two studies were cited, providing evidence about prevalence and incidence. One study of 1,711 community-based adults receiving home care indicated an incidence of 3.2% of Stage II through IV pressure ulcers; the other study, focusing on a consecutive sample of 3,048 patients admitted to home health agencies, cited a prevalence of 9%, with 40% having Stage II pressure ulcers and 27% having Stage III or Stage IV pressure ulcers.

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-4; M-13; L-2; I-1** 2b. Validity**: H-3; M-16; L-1; I-0**
<u>Rationale:</u>

- Combining the measures was seen as a useful way to assess the quality of the continuum of care for pressure ulcer assessment, prevention, and treatment.
- The Committee clarified that measure *0540* involves using a standardized instrument to determine risk which is conducted by the home health agency. If necessary, this leads to contacting a physician and an ordered plan of care.
- The three combined measures were tested individually using agencies with at least 20 quality episodes and the analyses were based on beta-binomial distributions. The distribution scores indicated that at least 75% of agencies had a reliability score greater than 0.948 for risk assessment, 0.930 for plan of care, and 0.923 for interventions implemented during short term episodes of care, implying that performance can likely be distinguished from other agencies. Similarly, each measure was rated for validity by a technical expert panel (TEP) with 9 out of 13 rating the risk assessment as partially or completely meeting their criteria for validity, 7 out of 12 rating the plan of care as partially or completely meeting the criteria, and 8 out of 11 rating the interventions implemented during short term episodes of care as partially or completely meeting the criteria.

3. Usability: H-5; M-13; L-2; I- 0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
<u>Rationale</u>:

- This combined measure is currently publicly reported as three separate measures on the Medicare Home Health Compare website.

4. Feasibility: H-6; M-13; L-1; I-0

0538 Pressure ulcer prevention and care

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- The measure data are gathered and publicly reported using the OASIS system.

5. Related and Competing Measures

- The Committee determined that measure *0538* was related to but not competing with measure *0337: Pressure ulcer rate (PDI 2),* since *0538* is a process measure focused on an assessment, plan and the implementation of care, while *0337* is an outcome measure focused on capturing pressure ulcer rates. Additionally, *0538* applies to home health while *0337* applies to hospitals and acute care facilities. The NQF portfolio also includes two measures focused on new or worsening pressure ulcers in nursing home populations and one that measures the prevalence of pressure ulcers for in-hospital and nursing home patients.

Steering Committee Recommendation for Endorsement: Y-18; N-2

Public & Member Comment:

Comments included:

- It may be difficult for consumers to evaluate home health provider's prevention and care of pressure ulcers from this measure – the measure should incorporate outcomes and should score providers on an "all-or-none" basis.

  Developer response: CMS does not publicly report an outcome measure of how often patients develop new pressure ulcers because less than one half of one percent of home health patients experience this outcome. We will continue to refine these three process measures and evaluate the concordance between risk, inclusion on the plan of care and implementation for the next cycle.

Committee response: The Committee was satisfied with the developer's response, and reaffirmed its recommendation of measure 0538 as specified.

0337 Pressure ulcer rate (PDI 2)

Submission | **Specifications**

Description: Percent of discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of pressure ulcer in any secondary diagnosis field and ICD-9-CM code of pressure ulcer stage III or IV (or unstagable) in any secondary diagnosis field
Numerator Statement: Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of pressure ulcer in any secondary diagnosis field and ICD-9-CM code of pressure ulcer stage III or IV (or unstagable) in any secondary diagnosis field.
Denominator Statement: All surgical and medical discharges under age 18 defined by specific DRGs or MS-DRGs
Exclusions: Exclude cases:
- neonates
- with length of stay of less than 5 days
- with preexisting condition of pressure ulcer (see Numerator) (principal diagnosis or secondary diagnosis present on admission)
- in MDC 9 (Skin, Subcutaneous Tissue, and Breast)
- with an ICD-9-CM procedure code for debridement or pedicle graft before or on the same day as the major operating room procedure (surgical cases only)
- with an ICD-9-CM procedure code of debridement or pedicle graft as the only major operating room procedure (surgical cases only)
- 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 14 (pregnancy, childbirth, and puerperium)
- with missing discharge 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

Link to PDI appendices:
http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/TechnicalSpecifications/PDI%20Appendices.pdf
Adjustment/Stratification: 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, birthweight (500g groups), age in days (29-60, 61-90, 91+), age in years (in 5-year age groups), modified CMS DRG and AHRQ CCS comorbities. The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Data (SID) for the years 2008, a database consisting of 43 states and approximately 6 million pediatric discharges. 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.
Covariates used in this measure:
Age in Years 13 to 18
Age in Years 6 to 13
MDC 1
High-risk (hemiplegia, paraplegia, or quadriplegia, spina bifida, anoxic brain,other continuous mechanical ventilation code for 96 or more consecutive hours)
PDI 2 stratifies rates by high-risk vs. lower risk groups.
High risk groups:

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ICD-9-CM Hemiplegia, paraplegia, or quadriplegia diagnosis codes:
33371
ATHETOID CEREBRAL PALSY
3420
FLACCID HEMIPLEGIA
34200
FLCCD HMIPLGA UNSPF SIDE
34201
FLCCD HMIPLGA DOMNT SIDE
34202
FLCCD HMIPLG NONDMNT SDE
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
3443
MONOPLEGIA OF LOWER LIMB
34430
MONPLGA LWR LMB UNSP SDE
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
3446
CAUDA EQUINA SYNDROME
34460
CAUDA EQUINA SYNDROME, WITHOUT MENTION OF NEUROGENIC BLADDER
34461
CAUDA EQUINA SYNDROME, WITH NEUROGENIC BLADDER
3448
OTHER SPECIFIED PARALYTIC SYNDROMES
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
HYPOXIC-ISCHEMIC ENCEPHALOPATHY, UNSPECIFIED (OCT09)
76872
MODERATE HYPOXIC-ISCHEMIC ENCEPHALOPATHY (OCT09)
76873
SEVERE HYPOXIC-ISCHEMIC ENCEPHALOPATHY (OCT09)
ICD-9-CM Spina bifida diagnosis codes:
74100
SPINA BIFIDA, W HYDROCEPHALUS UNSPECIFIED REGION
74101
SPINA BIFIDA, W HYDROCEPHALUS CERVICAL REGION
74102
SPINA BIFIDA, W HYDROCEPHALUS DORSAL REGION
74103
SPINA BIFIDA, W HYDROCEPHALUS LUMBAR REGION
74190
SPINA BIFIDA, W/O HYDROCEPHALUS UNSPECIFIED REGION
74191
SPINA BIFIDA, W/O HYDROCEPHALUS CERVICAL REGION

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74192
SPINA BIFIDA, W/O HYDROCEPHALUS DORSAL REGION
74193
SPINA BIFIDA, W/O HYDROCEPHALUS LUMBAR REGION
7687
HYPOXIC-ISCHEMIC ENCEPH
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
ADD CONTINUOUS MECHANICAL VENTILATION >=96 HRS
Low risk group:
All patients not qualifying as high risk.
Level of Analysis: Facility
Type of Measure: Outcome
Data Source: Administrative claims
Measure Steward: Agency for Healthcare Research and Quality **Other organizations:** University of California-Davis
Stanford University
Battelle Memorial Institute

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-13; M-6; L-0; I-0** 1b. Performance Gap: **H-7; M-11; L-1; I-0** 1c. Evidence: **Y-18; N-1**

<u>Rationale</u>:

- The Committee considered the measure an important outcome, since pressure ulcers lead to greater length of stay and more expensive care.
- Data provided by the developer indicated that the greatest variations in performance occur between private, for-profit and public facilities. Other performance gaps were noted based on hospital region, teaching status, location and bed size.
- The Committee discussed the evidence for excluding neonates from the measure. The developer explained that low birth weight infants have fragile skin, and the preventability of pressure ulcers was questioned by their expert panel. In the future, the Committee encouraged the developer to create a measure specifically to target pressure ulcers in the neonate population.

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-5; M-14; L-0; I-0** 2b. Validity**: H-1; M-13; L-5; I-0**

<u>Rationale:</u>

- The Committee noted that the positive predictive value of the measure to capture actual pressure ulcers with noted exclusions ranged from 54-64%. However, the developer explained that this rate reflected the positive predictive value before the current present-on-admission code had been included in the measure as an exclusion. As a result the positive predictive value should increase. The Committee was concerned that more rigorous data involving the positive predictive value was not available; yet, they

0337 Pressure ulcer rate (PDI 2)
agreed that the measure was important and accepted that it would be updated accordingly in the future. • The developer is also investigating the appropriateness of exclusions, since coding for pressure ulcers has become more granular, and is scheduled to conclude their review in the fall of 2012. As a result, in the future it is expected that the list of exclusions will become more limited when the measure is reviewed through the annual update process.
3. Usability: H-9; M-7; L-3; I-0 (*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)* Rationale: • This measure is used for public reporting by Norton Healthcare and is part of the Pediatric Quality Indicators (PDI), which is used by several entities to collect information on the quality improvement efforts related to pressure ulcers.
4. Feasibility: H-13; M-6; L-0; I-0 *(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)* Rationale: • The measure is not burdensome to collect as it involves the use of electronic claims.
5. Related and Competing Measures • The Committee determined that measure *0337* was related to but not competing with measure *0538,* since *0337* is an outcome measure focused on capturing the rate of pressure ulcers, while *0538* is a process measure focused on an assessment, plan and the implementation of care. Additionally, *0337* applies to hospitals and acute care facilities, *0538* applies to home healthcare. The NQF portfolio also includes two measures focused on new or worsening pressure ulcers in nursing home populations and one that measures the prevalence of pressure ulcers for in-hospital and nursing home patients.
Steering Committee Recommendation for Endorsement: Y-17; **N-2**
Public & Member Comment: Comments included: • One comment was received in support of the measure.

0347 Death rate in low-mortality diagnosis related groups (PSI 2)

Submission | **Specifications**

Description: Percent of discharges with disposition of "deceased" (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator
Numerator Statement: Discharges with disposition of "deceased" (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator
Denominator Statement: Discharges, 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), in DRGs or MS-DRGs with less than 0.5% mortality rate. If a DRG is divided into two groups with or without "comorbidities or complications" or an MS-DRG is divided into three groups - with major, other, or no comorbidities or complications - then both DRGs or all MS-DRGs must have mortality rates below 0.5% to qualify for inclusion.
Exclusions: Exclude cases:
- with any code for trauma, cancer, or 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)
Adjustment/Stratification: 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 CMS DRG, and the AHRQ Comorbidity category. The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Data (SID) for the years 2008, a database consisting of 42 states and approximately 30 million adult discharges. 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.

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	413
MDRG	533
MDRG	1915
MDRG	2019
MDC	19
TRNSFER	Transfer-in
NOPRDAY	Procedure Days Data Not Available
COMORB	CHF
COMORB	NEURO
COMORB	CHRNLUNG
COMORB	HYPOTHY
COMORB	RENLFAIL
COMORB	OBESE
COMORB	ANEMDEF Not applicable

0347 Death rate in low-mortality diagnosis related groups (PSI 2)

Level of Analysis: Facility
Type of Measure: Outcome
Data Source: Administrative claims
Measure Steward: Agency for Healthcare Research and Quality **Other organizations:** University of California-Davis Stanford University
Battelle Memorial Institute

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-2; M-12; L-2; I-1** 1b. Performance Gap: **H-2; M-13; L-1; I-1** 1c. Evidence: **Y-13; N-4**

<u>Rationale</u>:

- This measure was designed to focus on patients who died but who would not be expected to die based on having a diagnosis with a low overall death rate. The underlying assumption is that when patients admitted for an extremely low-mortality condition or procedure die, a medical error is more likely to be a contributing factor.
- Data on the performance gap indicated variation in treatment by region, hospital type, location and bed size.
- The Committee reviewed the evidence and noted that the citations used provided information about the methodology and not the incidence of Diagnosis-Related Groups (DRGs). The developer was able to submit updated information to the Committee following the in-person meeting. Hannan et al. (1989) found that patients in low-mortality DRGs were 5 times more likely than non-targeted cases to receive care that departed from care standards. The overall rate of substandard care was 10% in the group identified by the measure, compared with 2% in random controls. Among the 10% of cases where there was substandard care, in more than half (58%) the patient's death was attributed to substandard care. Based upon that, it was recommended that this measure could be useful as a screening tool to identify cases for chart review.

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-13; L-3; I-0** 2b. Validity**: H-2; M-13; L-2; I-0**

<u>Rationale</u>:

- Some Committee members expressed concern about why the measure did not use risk-adjustment based on All Patient Refined Diagnosis Related Groups (APR-DRGs) instead of the CMS DRGs, which were designed specifically for the Medicare population. The developer explained that using APR-DRGs, a proprietary product from 3M, provides more precise risk stratification. Although the developer uses the APR-DRG system for risk adjustment in certain mortality indicators, they have not explored using it to calculate the risk-adjustment for this measure. They are willing to consider it in the future but noted that the measure has not been tested with the APR-DRGs. Following the meeting, the developer addressed the risk adjustment model by submitting additional information regarding DRG testing in Australia, which found that the indicator was modified by patient characteristics including age, male sex, comorbidities, inter-hospital transfer and skilled nursing facilities transfers (SNF).
- The Committee questioned whether recent changes in coding, specifically related to better awareness of using the present-on-admission (POA) code, had impacted the mortality prediction of 0.5%. The developer conceded that testing POA coding might affect the determination of what will be considered a low-mortality DRG. However, they have not yet tested it.
- It was questioned whether the measure should use a hospital standardized morality ratio (HSMR) to

create an observed to expected mortality ratio based on all cases. However, the developer pointed out that the measure is specifically targeted to low mortality DRGs, and not all mortality. As a result, conceptually, the two approaches would be very different.

- The Committee noted that the measure could monitor 30-day mortality instead of just in-hospital mortality. However, the developer explained that while 30 day mortality has conceptual advantages, such as a reduction in bias related to patient transfers and the recognition of length of stay patterns across hospitals, few data sets allow an estimation of risk adjusted 30-day mortality for all payers. This measure is intended for use to all payers across a hospital's population; as a result this measure can only be used with inpatient data.
- A Committee member stated that there were relatively weak associations between organizations that scored poorly on this measure and other quality of care indicators.
- The Committee requested the developer further study the positive predictive value and undergo additional validity testing to examine the accuracy of DRG cases being captured.
- There was concern about the low proportion of cases identified by the measure that departed from the standard of care, specifically that in only 10% of cases identified by the measure, there was substandard care. The developer noted that this was 5 times higher than randomly chosen cases based on the report by Hannan et al. They also mentioned that in a more recent report on the measure, Mihrshani et al in 2010 reviewed all the published literature on this indicator and concluded that "the indicator has utility as a screening tool to enable institutions to quickly and easily identify a manageable number of medical records to investigate more fully, for example, by using chart reviews or a mortality review".
- To reduce potential inaccuracies, coding professionals follow detailed guidelines and are subject to training and credentialing requirements, peer reviews, and audits.
- Additional validity testing submitted by the developer indicated that a panel reviewed the measure and rated the indicator on its overall usefulness based on its rationale and characteristics; upon reviewing the supplemental information, the Committee was satisfied with the developer's response.

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

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

Rationale:

- While the data was considered useful for internal quality improvement, there was concern expressed about its usefulness for public accountability. However, the measure is currently used for public reporting in ten states.

4. Feasibility: H-8; M-9; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- This measure is feasible since it can be generated electronically.
-

5. Related and Competing Measures

- No related or competing measures noted.

0347 Death rate in low-mortality diagnosis related groups (PSI 2)

Steering Committee Recommendation for Endorsement: Y-13; N-4

Rationale

- Originally, this measure did not pass the importance criteria since the evidence for measuring DRGs was not clearly articulated. Additionally, the Committee expressed a variety of concerns about its reliability and validity. However, following updates to the measure and additional information provided to the Committee by the developer, the measure was reconsidered. It was ultimately recommended for endorsement.

Public & Member Comment:

Comments included:

- The measure's hierarchical risk adjustment may remove important variation from the results and may complicate consumer's ability to distinguish between providers.
  Developer response: The table below (Table 1) provides information on the ability of measure #0347 to reliably discriminate based on provider performance:

Table 1: Discrimination in Provider Performance, 2008

				95% Probability Interval	
Year	Number of Hospitals	Number of Patients	Reference Population Rate (per 1,000)	Better	Worse
2008	4,239	7,130,445	0.30060	4.4%	7.3%

Source: HCUP State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). 2008. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/sidoverview.jsp.

Committee response:

The Committee was satisfied with the developer's response, and reaffirmed its recommendation of measure 0347 as specified. However, they requested that NQF staff review the statistical model to better understand the developer's approach to hierarchical risk adjustment and provide feedback to the Committee in the future.

0204 Skill mix (Registered Nurse [RN], Licensed Vocational/ Practical Nurse [LVN/ LPN], Unlicensed Assisstive 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: 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. N/A 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

0204 Skill mix (Registered Nurse [RN], Licensed Vocational/ Practical Nurse [LVN/ LPN], Unlicensed Assisstive Personnel [UAP], and contract)

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
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:

0204 Skill mix (Registered Nurse [RN], Licensed Vocational/ Practical Nurse [LVN/ LPN], Unlicensed Assisstive Personnel [UAP], and contract)

Brain Injury/SCI, Cardiopulmonary, Neuro/Stroke and Orthopedic/Amputee Rehab units.
Pediatric
Limited to units generally caring for rehab patients under 18 years old.
Level of Analysis: Clinician : Team
Type of Measure: Structure
Data Source: Management Data, Other
Measure Steward: American Nurses Association

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-13; M-5; L-0; I-0** 1b. Performance Gap: **H-7; M-9; L-2; I-0** 1c. Evidence: **Y-17; N-1**

<u>Rationale</u>:

- Higher nurse staffing levels are significantly associated with better patient outcomes, including shorter length of stay, lower rates of mortality, failure to rescue, hospital acquired infections, falls, medication errors and pressure ulcers.
- There is a demonstrated performance gap particularly within unit types.
- There are 7 selected studies connecting skill mix to patient outcomes. The evidence indicates that better nurse staffing and better Registered Nurse (RN) skill mix are associated with a decreased length of stay, decreased mortality, lower failure to rescue, lower health care infections, falls, net errors and pressure ulcers.

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-4; M-11; L-3; I-0** 2b. Validity**: H-5; M-11; L-3; I-0**

<u>Rationale:</u>

- The reliability testing showed ICCs for nursing care by different types of nurse staffing, RNs, LPNs and UAPs, ranged from above 0.70 for Licensed Practical Nurses (LPN) hours and 0.95 for RN nursing hours.
- Each unit type included in the measure involves both nursing personnel and ancillary personnel. In the future the measure may include nurse extenders, such as administrative staff and sitters.

3. Usability: H-8; M-8; L-3; I-0

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

<u>Rationale</u>:

- The measure is used in public reporting, professional certification, and recognition programs and for internal and external quality improvement.
- The main users of the measure are chief nursing officers, nurse managers and performance improvement specialists within hospitals.
- The measure is also useful to consumers because it provides information on the type of nurse staffing being used by hospitals.

0204 Skill mix (Registered Nurse [RN], Licensed Vocational/ Practical Nurse [LVN/ LPN], Unlicensed Assisstive Personnel [UAP], and contract)

4. Feasibility: H-8; M-10; L-1; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- Data indicates that 72% of site coordinators have little difficulty getting data and that they review it before submission. The main difficulty encountered has been providing data by separate classifications.
- A Committee member suggested that an unintended consequence of requiring certain nursing staff ratios could be a hospital financially cutting back other staffing supports.

5. Related and Competing Measures

- No related or competing measures noted.

Steering Committee Recommendation for Endorsement: Y-19; **N-0**

*This measure is paired with measure *0205: Nursing hours per patient day* since they provide complimentary information regarding the number nursing hours worked by skill mix and the number of nursing hours with direct patient care.

Public & Member Comment:

Comments included:

- The number of specialty certified nurses can affect patient outcomes and should be addressed in the ratios. Variations in staffing mix may depend on the geographic region of the country and in some instances specific nurse staffing mandates are stipulated. Finally, staffing ratios may differ from freestanding inpatient rehabilitation facilities and hospital-based rehabilitation units.

  Developer response: Thank you very much for your comment and we agree. In our recent studies, we also found that there were variations in the relationships between nurse staffing and patient outcomes by unit type, nurse specialty certification, and geographical location (Boyle et al., 2011; Choi et al., 2012). Nurse staffing levels represent the conditions in which care occurs. At this time we do not have a statistical risk model for the nurse staffing measures. However, NDNQI provides member hospitals with quarterly national comparison data by unit type and several hospital characteristics. Because we stratify our staffing data to account for various levels of patient acuity, our main stratification is by unit type (e.g., adult or pediatric critical care, step down, medical, surgical, combined medical-surgical, and adult rehabilitation in-patient). NDNQI also classifies units by sub-specialties, such as brain injury/SCI, Orthopedic/amputee, neuro/stroke, cardiopulmonary, and none. However, some of the subspecialties do not have enough units enrolled to provide stable national comparison data. In addition to unit type, the stratifications can be done by facility bed size, teaching status, Magnet(R) Designation, Metropolitan status, census division, state, case mix index, and hospital specialty type (e.g. pediatric, psychiatric). In research on the relationship between and nurse staffing and patient outcomes, all of these were typical control variables that were included in the data analysis for control variables.

Committee response: The Committee requested in future versions of the measure the developer continue updating specifications, data permitting, to take into account additional variations in staffing ratios and collect data on specialty certified nurses. They reaffirmed their recommendation of measure 0204 for endorsement.

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: 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. N/A 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

0205 Nursing hours per patient day

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
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.
Level of Analysis: Clinician : Team
Type of Measure: Structure
Data Source: Management Data, Other
Measure Steward: American Nurses Association

0205 Nursing hours per patient day

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-8; M-8; L-3; I-0** 1b. Performance Gap: **H-3; M-13; L-1; I-2** 1c. Evidence: **Y-13; N-6**

<u>Rationale</u>:

- An Agency for Healthcare Research and Quality (AHRQ) meta-analysis of 97 observational studies found a strong and consistent relationship between nurse staffing and specific patient outcomes, such as mortality and length of stay. Furthermore, this measure is an important review tool to assess the number of productive hours worked by nursing staff with direct patient care responsibilities and provides information subdivided by RNs, LPNs and Unlicensed Assistive Personnel (UAPs). The performance gap indicates that there is a wide range of total nursing hours per patient day between and within unit types. The mean number of both total and RN hours per patient day were lowest in psychiatric other units and highest in pediatric critical care.
- The Committee noted that the evidence included several studies that raised questions regarding the relationship between nurse staffing and outcomes. However, the developer clarified that they included all studies that contributed to the knowledge base between nurse staffing and outcomes. Larger, more recent studies, which used appropriate statistical modeling, more clearly demonstrated the relationship. It was suggested that further studies, conducted over time, could yield additional data.

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-7; M-9; L-2; I-1** 2b. Validity**: H-4; M-9; L-5; I-1**

<u>Rationale:</u>

- The reliability testing showed that all of the ICCs for nursing care hours ranged from 0.70 for LPN nursing hours to 0.95 for RN nursing hours.
- Two studies provided information on validity. One study indicated that total nursing care hours per patient day was significantly associated with patient falls; for every increase of one hour in total nursing hours per patient day, fall rates were 1.9% lower. The second study found that an additional RN hour per patient day was associated with a 3% lower rate of falls in ICUs.

3. Usability: H-7; M-9; L-3; I-0

(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*

<u>Rationale</u>:

- This measure has been extensively used in public reporting and benchmarking across a number of organizations.

4. Feasibility: H-10; M-9; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

<u>Rationale</u>:

- Nursing hours are generally calculated electronically from payroll data or staffing systems. The data are reviewed afterwards to include the use of any float nurses, which could involve a third data source. The site coordinator then combines the information; it is reviewed for accuracy and reported to the American Nurses Association (ANA).

0205 Nursing hours per patient day

5. Related and Competing Measures

- No related or competing measures noted.

Steering Committee Recommendation for Endorsement: Y-18; N-1

*This measure is paired with measure *0204: Skill mix (Registered Nurse [RN], Licensed Vocational/ Practical Nurse [LVN/ LPN], Unlicensed Assisstive Personnel [UAP], and contract)* since they provide complimentary information regarding the number nursing hours worked by skill mix and the number of nursing hours with direct patient care.

Public & Member Comment:

Comments included:

- The number of specialty certified nurses can affect patient outcomes and should be addressed in the ratios. Variations in staffing mix may depend on the geographic region of the country and in some instances specific nurse staffing mandates are stipulated. Finally, staffing ratios may differ from freestanding inpatient rehabilitation facilities and hospital-based rehabilitation units.

  Developer response: Thank you very much for your comment and we agree. In our recent studies, we also found that there were variations in the relationships between nurse staffing and patient outcomes by unit type, nurse specialty certification, and geographical location (Boyle et al., 2011; Choi et al., 2012). Nurse staffing levels represent the conditions in which care occurs. At this time we do not have a statistical risk model for the nurse staffing measures. However, NDNQI provides member hospitals with quarterly national comparison data by unit type and several hospital characteristics. Because we stratify our staffing data to account for various levels of patient acuity, our main stratification is by unit type (e.g., adult or pediatric critical care, step down, medical, surgical, combined medical-surgical, and adult rehabilitation in-patient). NDNQI also classifies units by sub-specialties, such as brain injury/SCI, Orthopedic/amputee, neuro/stroke, cardiopulmonary, and none. However, some of the subspecialties do not have enough units enrolled to provide stable national comparison data. In addition to unit type, the stratifications can be done by facility bed size, teaching status, Magnet(R) Designation, Metropolitan status, census division, state, case mix index, and hospital specialty type (e.g. pediatric, psychiatric). In research on the relationship between and nurse staffing and patient outcomes, all of these were typical control variables that were included in the data analysis for control variables.

Committee response: The Committee requested in future versions of the measure the developer continue updating specifications, data permitting, to take into account additional variations in staffing ratios and collect data on specialty certified nurses. They reaffirmed their recommendation of measure 0205 for endorsement.

0206 Practice Environment Scale - Nursing Work Index (PES-NWI) (composite and five subscales)

Submission | Specifications

Description: Practice Environment Scale-Nursing Work Index (PES-NWI) is a survey based measure of the nursing practice environment completed by staff registered nurses; includes mean scores on index subscales and a composite mean of all subscale scores.
Numerator Statement: Continuous Variable Statement: For surveys completed by Registered Nurses (RN):
12a) Mean score on a composite of all subscale scores
12b) Mean score on Nurse Participation in Hospital Affairs (survey item numbers 5, 6, 11, 15, 17, 21, 23, 27, 28)
12c) Mean score on Nursing Foundations for Quality of Care (survey item numbers 4, 14, 18, 19, 22, 25, 26, 29, 30, 31)
12d) Mean score on Nurse Manager Ability, Leadership, and Support of Nurses (survey item numbers 3, 7, 10, 13, 20)
12e) Mean score on Staffing and Resource Adequacy (survey item numbers 1, 8, 9, 12)
12f) Mean score on Collegial Nurse-Physician Relations (survey item numbers 2, 16, 24)
12g) Three category variable indicating favorable, mixed, or unfavorable practice environments: favorable = four or more subscale means exceed 2.5; mixed = two or three subscale means exceed 2.5; unfavorable = zero or one subscales exceed 2.5.
Denominator Statement: Staff RNs
Exclusions: Not applicable
Adjustment/Stratification: No risk adjustment or risk stratification Not applicable 12a) Mean score on a composite of all subscale scores
12b) Mean score on Nurse Participation in Hospital Affairs (survey item numbers 5, 6, 11, 15, 17, 21, 23, 27, 28)
12c) Mean score on Nursing Foundations for Quality of Care (survey item numbers 4, 14, 18, 19, 22, 25, 26, 29, 30, 31)
12d) Mean score on Nurse Manager Ability, Leadership, and Support of Nurses (survey item numbers 3, 7, 10, 13, 20)
12e) Mean score on Staffing and Resource Adequacy (survey item numbers 1, 8, 9, 12)
12f) Mean score on Collegial Nurse-Physician Relations (survey item numbers 2, 16, 24)
12g) Three category variable indicating favorable, mixed, or unfavorable practice environments: favorable = four or more subscale means exceed 2.5; mixed = two or three subscale means exceed 2.5; unfavorable = zero or one subscales exceed 2.5.
Level of Analysis: Clinician : Team, Facility
Type of Measure: Structure
Data Source: Healthcare Provider Survey
Measure Steward: The Joint Commission (TJC)

STEERING COMMITTEE MEETING 06/14-15/2012
Importance to Measure and Report: The measure meets the Importance criteria
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: **H-10; M-8; L-1; I-0** 1b. Performance Gap: **H-10; M-9; L-0; I-0** 1c. Evidence: **Y-19; N-0**
Rationale:

- Since the nursing workforce is the largest group of caregivers in all healthcare settings, measuring the practice environment provides key information on the nursing environment and staffing. The Practice Environment Scale- Nursing Work Index (PES-NWI) has been used to test the links between nurses' environments and nurse and patient outcomes since 2002.

0206 Practice Environment Scale - Nursing Work Index (PES-NWI) (composite and five subscales)

- The measure is supported by 37 studies, which indicate a significant association between the work index and risk of death, failure to rescue, rates of hospitalization, satisfaction scores, adverse events, turnover, needle sticks, infections and low birth weight.
- The PES-NWI is measured on a four point Likert scale, with possible scores ranging from 1.0 to 4.0. The average hospital-level subscale ranged from 2.50 to 2.84. The lowest score was noted in "Staffing and Resource Adequacy" and the highest was in "Collegial Nurse-Physician Relations".

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-5; M-14; L-0; I-0** 2b. Validity**: H-4; M-15; L-1; I-0**
<u>Rationale:</u>

- The measure uses a random sample of 50 staff nurses and anticipates a response rate of 60%, which is The Joint Commission's (TJC's) standard. The Committee questioned whether there was an adjustment in the sampling strategy based on the size of the hospital. However, for consistency the measure requires a minimum of 30 nurses. Use of the index internationally indicates that this sample size is sufficient to identify differences across hospitals.
- Research evidence using this instrument in a pre-test and post-test design show that in four of the five subscales, the value increased; this indicates that the index is sensitive to organizational quality improvement efforts.
- The Committee noted in the future the measure could be further specified to collect information on union and non-union hospitals. Additionally information could be collected on hospital size, for-profit and not-for-profit institutions.

3. Usability: H-11; M-7; L-2; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
<u>Rationale</u>:

- The measure has been publicly reported at the organizational level for about 5 years and provides hospitals with actionable items for quality improvement. It also supplies consumers with important information.

4. Feasibility: H-15; M-5; L-0; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
<u>Rationale</u>:

- This measure relies exclusively on electronic sources and nurses submit their responses directly to the University of Kansas server. There is extensive guidance available for survey coordinators in each hospital to manage the response rates. Additionally, they are responsible for ensuring that human subjects protection are in place and nurses are protected from being constrained to answer in a certain manner. If there are any complaints, participants are able to contact the Human Subjects Office.

5. Related and Competing Measures

- No related or competing measures noted.

0206 Practice Environment Scale - Nursing Work Index (PES-NWI) (composite and five subscales)
Steering Committee Recommendation for Endorsement: Y-19; N-0
Public & Member Comment: Comments included: • No comments received.

1716 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) bacteremia outcome measure

Submission | **Specifications**

Description: Standardized infection ratio (SIR) of hospital-onset unique blood source MRSA Laboratory-identified events (LabID events) among all inpatients in the facility
Numerator Statement: Total number of observed hospital-onset unique blood source MRSA LabID events among all inpatients in the facility
Denominator Statement: Total number of expected hospital-onset unique blood source MRSA LabID events, calculated by multiplying the number of inpatient days for the facility by the hospital-onset MRSA LabID event rate for the same types of facilities (obtained from the standard population).
Exclusions: Data from patients who are not assigned to an inpatient bed are excluded from the denominator counts. These include outpatient clinic and emergency department visits.
Adjustment/Stratification: Other Standardized Infection Ratio The SIR is a method of indirect standardization that summarizes HAI experience across a series of groups of data. The SIR compares a facility's observed number of unique hospital-onset blood MRSA LabID events for a given time period to the 2009-2010 standard population's experience, which can be used to calculate an expected number of LabID events. Dividing observed by expected numbers of LabID events produces the SIR.
The rate of unique hospital-onset blood MRSA LabID events identified per 1,000 patient days from the standard population is used to calculate the number of expected unique hospital-onset blood MRSA LabID events for a given facility. These rates are adjusted by facility-specific factors, including facility type, facility bedsize, teaching status, medical school affiliation (major, graduate, or limited, see 2a1.7), and possibly CMS case mix index. The measure will not be stratified, as it is an overall facility-wide summary measure. Facility characteristics will be used for risk adjustment, described in 2a1.13.
Level of Analysis: Facility, Population : National, Population : State
Type of Measure: Outcome
Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Paper Records
Measure Steward: Centers for Disease Control and Prevention

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-15; M-1; L-0; I-0** 1b. Performance Gap: **H-10; M-6; L-0; I-0** 1c. Evidence: **Y-15; N-1**

Rationale:

- The measure is aimed at reducing infection rates. Multidrug-Resistant Organisms (MDROs), including Methicillin-resistant Staphylococcus aureus (MRSA), have been associated with increased mortality, length of stay and cost. Additionally, 56.8% of all central line-associated bloodstream infections reported to the National Healthcare Safety Network (NHSN) in 2006-2007 caused by Staphylococcus aureus were MRSA.
- In 2010, MRSA bacteremia was monitored in 548 facilities from 29 states. A total of 1,078 Healthcare Facility-Onset (HO) MRSA bacteremia events were reported from 3,807,920 admissions and 17,427,005 patient-days. MRSA bacteremia incidence rates differed significantly by teaching type and bed size.
- Following the 2006 Healthcare Infection Control Practices and Advisory Committee (HICPAC) guideline can be used to reduce the incidence and transmission of infections with MDROs in healthcare facilities.

1716 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) bacteremia outcome 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-7; M-9; L-0; I-0** 2b. Validity**: H-7; M-9; L-0; I-0**
<u>Rationale:</u>

- The measure examines the hospital onset of MRSA that occurs more than three days after admission to a facility. It counts patient days within the facility, which are collected and entered by infection preventionists. Data are presented as a standardized infection ratio and the denominator is measured in 1000 patient days.
- The Committee requested clarification on the CDC's risk-adjustment methods, with some questioning whether the measure could account for institutions with higher concentrations of immune-compromised patients (e.g., cancer hospitals). The CDC provided additional information on the variables included in the Standardized Infection Ratio (SIR) for this measure.
- The Committee was satisfied with the SIR methodology and did not have concerns about the measure's validity or reliability.

3. Usability: H-11; M-5; L-0; I-0
(*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)*
<u>Rationale</u>:

- This measure will be included in CMS´ Hospital Inpatient Quality Reporting (IQR) Program for events identified starting in January 2013.

4. Feasibility: H-10; M-6; L-0; I-0
(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)
<u>Rationale</u>:

- Data are entered both manually and through an automated system.
- There was concern that lab tests confirming MRSA may not be ordered by hospitals in order to artificially reduce the number of MRSA infections reported. The developer thought this would be unlikely; however, they stated that if they had an indication of this type of situation, they could create another measure relating to the use of antimicrobials without obtaining a culture as another method of capturing MRSA infections focused exclusively treatment.

5. Related and Competing Measures

- No related or competing measures noted.

Steering Committee Recommendation for Endorsement: Y-16; **N-0**

1716 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) bacteremia outcome measure

Public & Member Comment:

Comments included:

- Standardized infection rates are not as meaningful to consumers as the actual risk-adjusted rates of infection per admission.

  ***Developer response*:** We appreciate the commenter's feedback. The standardized infection ratio (SIR) offers clear advantages to healthcare consumers over infection rates as the summary metric for this measure. The SIR produces a single risk-adjusted metric that can be further aggregated to the state, regional, or national level, all while maintaining appropriate comparisons between healthcare facilities. Further, observed-to-predicted ratios, such as the SIR, are widely used in public reporting of healthcare quality data. CDC, the Centers for Medicare and Medicaid Services, health departments in many states, and Consumers Union all use the SIR to report HAI data.

Committee response: The Committee was satisfied with the developer's response and reaffirmed its recommendation of measure 1716 as specified. However, they suggested the developer consider reporting actual risk-adjusted rates of infection per admission in the future. The Committee also recognized the importance of measures that are meaningful to consumers and it was noted as an area of future measure development in the draft report.

1717 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Clostridium difficile Infection (CDI) outcome Mmeasure

Submission | **Specifications**

Description: Standardized infection ratio (SIR) of hospital-onset CDI Laboratory-identified events (LabID events) among all inpatients in the facility, excluding well-baby nurseries and neonatal intensive care units (NICUs)
Numerator Statement: Total number of observed hospital-onset CDI LabID events among all inpatients in the facility, excluding well baby-nurseries and NICUs
Denominator Statement: Total number of expected hospital-onset CDI LabID events, calculated by multiplying the number of inpatient days for the facility by the hospital-onset CDI LabID event rate for the same types of facilities (obtained from the standard population).
Exclusions: Data from patients who are not assigned to an inpatient bed are excluded from the denominator counts, including outpatient clinic and emergency department visits. Additionally, data from well-baby nurseries and NICUs are excluded from the denominator count.
Adjustment/Stratification: Other Standardized Infection Ratio (SIR) The SIR is a method of indirect standardization that summarizes HAI experience across a series of groups of data. The SIR compares a facility's observed number of hospital-onset CDI LabID events for a given time period to the 2009-2010 standard population's experience, which can be used to calculate an expected number of LabID events. Dividing observed by expected numbers of LabID events produces the SIR.
The rate of hospital-onset CDI LabID events identified per 1,000 patient days from the standard population is used to calculate the number of expected hospital-onset CDI LabID events for a given facility. These rates are stratified by facility-specific factors, including facility type, facility bedsize, and medical school affiliation (major, graduate, or limited, see 2a1.7), the number of admission prevalent CDI LabID events, the type of microbiological test the facility uses to identify C. difficile, and possibly CMS case mix index. The measure will not be stratified, as it is an overall facility-wide summary measure. Facility characteristics will be used for risk adjustment, described in 2a1.13.
Level of Analysis: Facility, Population : National, Population : State
Type of Measure: Outcome
Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Paper Records
Measure Steward: Centers for Disease Control and Prevention

STEERING COMMITTEE MEETING 06/14-15/2012
Importance to Measure and Report: The measure meets the Importance criteria
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: **H-15; M-1; L-0; I-0** 1b. Performance Gap: **H-6; M-10; L-0; I-0** 1c. Evidence: **Y-16; N-0**
Rationale:

- This measure is important since concern about Clostridium difficile Infection (CDI) has risen significantly in the medical community. Rates of CDI are highest for patients in healthcare facilities and increase with patient age.
- In 2010, 715 facilities from 28 states monitored CDI events in NHSN. A total of 20,803 HO CDI events were reported from 5,757,846 admissions and 28,279,284 patient-days. CDI incidence rates differed significantly by facility teaching type, bed size, test type, and Community Onset (CO) prevalence.
- The measure is supported by clinical practice guidelines from the Society for Healthcare Epidemiology or America (SHEA), Infectious Disease Society of America (IDSA) and the CDC Healthcare infections Control Practices Advisory Committee (HICPAC). By adhering to these guidelines can decrease the rate of CDI

1717 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Clostridium difficile Infection (CDI) outcome Mmeasure
transmission and infection.
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-7; M-9; L-0; I-0** 2b. Validity**: H-7; M-9; L-0; I-0** <u>Rationale:</u> • The denominator time window in 10,000 patient days was used to create an easily understandable time period for measure calculations. The Committee expressed concern that the number of infections may be low since the measure included a lengthy time period. However, the developer explained that CDI was increasing and that rates are reviewed annually, and that this is the standard way that CDI rates are reported. • The time window is monthly reporting, with each facility completing a reporting plan to that they are following infections. • Neonates and babies less than one year of age are excluded from the measure since whether an infection is present or whether they are carriers is not clear and easy to differentiate. • More sensitive testing for CDI has become available, through the use of Polymerase Chain Reaction (PCR), and is increasingly available to facilities. Because PCR-based tests are more sensitive, it may appear that facilities using PCR-based testing would have higher rates than non-PCR based testing. • The Committee was satisfied with the Standardized Infection Ratio (SIR) methodology and did not have concerns about the measure's validity or reliability.
3. Usability: H-12; M-4; L-0; I-0 (*Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)* <u>Rationale</u>: • This measure will be included in CMS´ Hospital Inpatient Quality Reporting (IQR) Program for events identified starting in January 2013.
4. Feasibility: H-10; M-6; L-0; I-0 *(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)* <u>Rationale</u>: • The Committee noted that the use of antibiotics to treat CDI could be susceptible to overuse and misuse. The developer indicated that they will have an antimicrobial use and resistance model to monitor this issue through NHSN, which will likely be ready in August 2013.
5. Related and Competing Measures • No related or competing measures noted.
Steering Committee Recommendation for Endorsement: Y-16; **N-0**

1717 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Clostridium difficile Infection (CDI) outcome Mmeasure

Public & Member Comment:

Comments included:

- Standardized infection rates are not as meaningful to consumers as the actual risk-adjusted rates of infection per admission.

  ***Developer response*:** We appreciate the commenter's feedback. The standardized infection ratio (SIR) offers clear advantages to healthcare consumers over infection rates as the summary metric for this measure. The SIR produces a single risk-adjusted metric that can be further aggregated to the state, regional, or national level, all while maintaining appropriate comparisons between healthcare facilities. Further, observed-to-predicted ratios, such as the SIR, are widely used in public reporting of healthcare quality data. CDC, the Centers for Medicare and Medicaid Services, health departments in many states, and Consumers Union all use the SIR to report HAI data.

Committee response: The Committee was satisfied with the developer's response and reaffirmed its recommendation of measure 1717 as specified. However, they suggested the developer consider reporting actual risk-adjusted rates of infection per admission in the future. The Committee also recognized the importance of measures that are meaningful to consumers and it was noted as an area of future measure development in the draft report.

Measures not recommended

0207 Voluntary turnover

Submission

Description: NSC-11.1 Total number of full-time and part-time Registered Nurse (RN) and Advanced Practice Nurse (APN) voluntary uncontrolled separations occurring during the calendar month
NSC-11.2 Total number of full-time and part-time Licensed Practical Nurse (LPN), Licensed Vocational Nurse (LVN) voluntary uncontrolled separations occurring during the calendar month
NSC-11.3 Total number of full-time and part-time Unlicensed Assistive Personnel (UAP) voluntary uncontrolled separations occurring during the calendar month
Numerator Statement: The total number of voluntary uncontrolled separations of nursing staff during the calendar month, stratified by type of staff.
Denominator Statement: Total number of full time and part time employees on the last day of the month, stratified by type of staff.
Exclusions: Excluded Populations:
Per diems, contractors, consultants, temporary agency, travelers, students, or other non-permanent employees.
Adjustment/Stratification: No risk adjustment or risk stratification None NSC-11.1 RN and APN
NSC-11.2 LPN and LVN
NSC-11.3 UAP
Level of Analysis: Clinician : Team, Facility
Type of Measure: Structure
Data Source: Management Data, Other
Measure Steward: The Joint Commission

STEERING COMMITTEE MEETING 06/14-15/2012
Importance to Measure and Report: The measure does not meet the Importance criteria
(1a. High Impact: 1b. Performance Gap, 1c. Evidence)
1a. Impact: **H-1; M-7; L-10; I-2** 1b. Performance Gap: **H-0; M-0; L-0; I-0** 1c. Evidence: **Y-0; N-0**
Rationale:

- The Committee suggested that the measure was important but would be more useful if it captured all movement of staff including voluntary and involuntary turnover or contained stratification. It may also be helpful to include temporary nurses.
- The Committee expressed concern that voluntary nurse turnover was not directly related to the delivery of care. Additionally, it was noted that the relationship between turnover and clinical outcomes may be confounded by culture, resources or other variables. The evidence suggested that the strongest linkages were between staffing levels, which could be tied to turnover, in relation to mortality and length of stay. The developer explained that there was unpublished work relating pressure ulcers and infections to total turnover. The Committee requested more evidence in the future.

Steering Committee Recommendation for Endorsement: The measure does not meet the Importance criteria
Rationale

- The Committee agreed that the measure needed to be more closely tied to outcomes and the developer should consider using a measure that reflects turnover, voluntary and non-voluntary.

0504 Pediatric weight documented in kilograms

Submission

Description: Percentage of emergency department visits by patients < 18 years of age with a current weight documented in kilograms in the ED electronic health record; measure to be reported each month.
Numerator Statement: Number of emergency department visits by patients < 18 years of age with a current weight documented in kilograms in the ED electronic health record
Denominator Statement: Number of emergency department visits by patients <18 years of age
Exclusions: No denominator exclusions
Adjustment/Stratification: No risk adjustment or risk stratification No stratification variables recommended
Level of Analysis: Facility
Type of Measure: Process
Data Source: Electronic Clinical Data : Electronic Health Record
Measure Steward: American Academy of Pediatrics

STEERING COMMITTEE MEETING 06/14-15/2012

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

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

1a. Impact: **H-10; M-5; L-3; I-1** 1b. Performance Gap: **H-0; M-0; L-0; I-0** 1c. Evidence: **Y-6; N-13**

Rationale:

- The developer explained that children incur 25% of the 120 million visits to the emergency department each year. When weight is estimated instead of measured, children may be overdosed or under dosed on medications.
- The Committee suggested the measure may not be necessary since electronic health records automatically convert pounds to kilograms.
- The Committee expressed concern that the measure did not present sufficient evidence that pediatric weight in kilograms would reduce medication errors in children and improve outcomes. The main evidence cited for the measure involved a pediatric study reviewing the differences between estimated weights and actual weights. Additionally, the Committee stated there may be a number of other contributors to medication dosing errors. However, the Committee did not review the performance gap, since the 1c. criteria evidence was discussed first and the measure did not pass.

Steering Committee Recommendation for Endorsement: The measure does not meet the Importance criteria
Rationale:

- The Committee's main concern was the dearth of evidence directly tied to documenting pediatric weight in kilograms and a reduction in medication errors, or even observational data demonstrating that non-documentation of weight is associated with increased medical errors.

0504 Pediatric weight documented in kilograms
Public & Member Comment: Comments included: • A comment by the Emergency Nurses Association (ENA) suggested that this measure should be reconsidered because of the importance of reducing medication errors in children due to incorrect weight. It cites additional evidence and notes that the use of EHRs may not eliminate errors, which further indicates the need for a quality measure. **Committee response:** The Committee noted the significance of pediatric weight documented in kilograms but indicated that the developer needed to present data linking the failure to measure weight in kilograms to adverse events or demonstrate that measuring weight for pediatric patients mitigates adverse events. After a re-vote, the measure remained not recommended for endorsement, but the Committee encouraged the developer to resubmit it in the future after additional evidence had been generated linking the measure to outcomes. **Vote Following Consideration of Public and Member Comments:** **1. Importance to Measure and Report** *(based on decision logic):* **Yes** **1a.** Impact: **H-12; M-4; L-4; I-2 1b.** Performance Gap: **H-4; M-8; L-6; I-4 c.** Evidence: **Y-11; N-0; I-11** **2. Scientific Acceptability of Measure Properties** *(based on decision logic):* **Yes** **2a.** Reliability: **H-6; M-7; L-7; I-2 2b.** Validity: **H-3; M-10; L-7; I-2** **Usability: H-8; M-9; L-5; I-0** **Feasibility: H-11; M-7; L-3; I-1**
Steering Committee Recommendation on Overall Suitability for Endorsement: Y-10; N-12

Measures withdrawn from consideration

Three measures previously endorsed by NQF have not been re-submitted or withdrawn from maintenance of endorsement. The following measures are being retired from endorsement:

Measure	Reason for retirement
0503 Anticoagulation for acute pulmonary embolus	Developer requested additional time for reliability and validity testing.
0539 Pressure ulcer prevention implemented during short term episodes of care	Developer combined three pressure ulcer measures into one measure with three rates
0540 Pressure ulcer risk assessment conducted	Developer combined three pressure ulcer measures into one measure with three rates

Appendix A: Measure Specifications

	0035 Fall risk management
Steward	National Committee for Quality Assurance
Description	a) 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. b) 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.
Type	Process
Data Source	Patient Reported Data/Survey Medicare Health Outcomes Survey (HOS) URL http://www.hosonline.org/Content/Default.aspx
Level	Clinician : Individual, Health Plan, Population : National
Setting	Ambulatory Care : Ambulatory Surgery Center (ASC), Ambulatory Care : Clinician Office/Clinic, Ambulatory Care : Outpatient Rehabilitation, Ambulatory Care : Urgent Care, Behavioral Health/Psychiatric : Inpatient, Behavioral Health/Psychiatric : Outpatient, Dialysis Facility, Emergency Medical Services/Ambulance, Home Health, Hospice, Hospital/Acute Care Facility, Imaging Facility, Laboratory, Pharmacy, 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
Numerator Statement	This measure has two rates. The numerator for the discussing falls rate is the number of older adults who talked with their doctor about falling or problems with balance or walking. The numerator for the managing falls risk rate is the number of older adults who report having their provider suggest an intervention to prevent falls or treat problems with balance or walking.
Numerator Details	**Time Window:** 12 month measurement year This measure is collected through patient self-report on a mailed (phone follow-up) survey. The questions used to identify the numerator for the two rates are: a) Discussing Falls Q1: “A fall is when your body goes to the ground without being pushed. In the past 12 months, did you talk with your doctor or other health provider about falling or problems with balance or walking?” Answer choices: Yes, No, I had not visits in the past 12 month. (an answer of “Yes” is required for the numerator) b) Managing Fall Risk Q4: “Has your doctor or other health provider done anything to help prevent falls or treat problems with balance or walking? Some things they might do include: Suggest that you use a cane or walker, check your blood pressure lying or standing, suggest that you do an exercise or physical therapy program, and suggest a vision or hearing testing.” Answer choices: Yes, No, I had not visits in the past 12 month. (an answer of “Yes” is required for the numerator)
Denominator Statement	Each rate has a different denominator. The Discussing Falls measure has two

	0035 Fall risk management
	denominators: adults age 75 and older who had a provider visit in the past 12 months and 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.
Denominator Details	**Time Window:** 12 month measurement year The denominator is collected through patient self-report on a mailed (phone follow-up) survey. The questions used to identify the denominator are: A1) Discussing Falls members aged 65-75 Q1: "A fall is when your body goes to the ground without being pushed. In the past 12 months, did your doctor or other health provider talk with you about falling or problems with balance or walking?" Answer choices: yes, no, I had not visits in the past 12 months (Answer choice of yes or no is required for denominator inclusion). AND Q2: "Did you fall in the past 12 months? ?" Answer choices: Yes, No (answer choice of yes for denominator inclusion) OR Q3: "= "Yes" or Q50 In the past 12 months, have you had a problem with balance or walking?" Answer choice: Yes, No (answer choice of yes for denominator inclusion) A2) Discussing Falls members aged 75+: Q1: "A fall is when your body goes to the ground without being pushed. In the past 12 months, did your doctor or other health provider talk with you about falling or problems with balance or walking?" Answer choices: yes, no, I had not visits in the past 12 months (Answer choice of yes or no is required for denominator inclusion). B) Managing Fall Risk: Q1: "A fall is when your body goes to the ground without being pushed. In the past 12 months, did your doctor or other health provider talk with you about falling or problems with balance or walking?" (Answer choice of yes or no is required for denominator inclusion) AND Q2: "Did you fall in the past 12 months?" Answer choices: Yes, No (answer choice of yes for denominator inclusion) OR Q3: "In the past 12 months, have you had a problem with balance or walking?" Answer choice: Yes, No (answer choice of yes for denominator inclusion) AND Q4: Has your doctor or other health provider done anything to help prevent falls or treat problems with balance or walking? Some things they might do include: Suggest that you use a cane or walker; Check your blood pressure lying or standing; suggest that you do an exercise or physical therapy program; suggest a vision or hearing testing. Answer choices: yes, no, I had not visits in the past 12 months (Answer choice of yes or no is required for denominator inclusion).
Exclusions	N/A
Exclusion Details	N/A
Risk Adjustment	No risk adjustment or risk stratification

	0035 Fall risk management
	N/A
Stratification	N/A
Type Score	Rate/proportion better quality = higher score
Algorithm	Discussing Falls Step 1: Determine the eligible population: The eligible population is all adults aged 65 and older. Step 2: Determine the number of patients meeting the denominator criteria. The denominator includes all patients aged 65-74 with a self-reported provider visit in the past year (Q1) who report having had a fall (Q2) or problem with balance or walking in the past year (Q3) OR all patients aged 75 and older with a self-reported provider visit in the past year (Q1). Step 3: Determine the number of patients meeting the numerator criteria. The numerator includes all patients in the denominator population who reported discussing falls or a problem with walking or balance with a provider in the past year (Q1). Step 4: Calculate the rate by dividing the total from step 3 by the total from step 3. Managing Falls Risk Step 1: Determine the eligible population: The eligible population is all adults aged 65 and older. Step 2: Determine the number of patients meeting the denominator criteria. The denominator includes all patients aged 65 and older with a self-reported provider visit in the past year (Q1 and Q4) who report having had a fall (Q2) or problem with balance or walking in the past year (Q3). Step 3: Determine the number of patients meeting the numerator criteria. The numerator includes all patients in the denominator population who indicated their provider provided suggestions for falls risk management (Q4). Step 4: Calculate the rate by dividing the total from step 3 by the total from step 3.
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	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 fall risk (2 or more falls in the past year or any fall with injury in the past year) at least once within 12 months B) Multifactorial Risk Assessment for Falls: 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 to Prevent Future 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 N/A
Level	Clinician : Group/Practice, Clinician : Individual, Clinician : Team
Setting	Ambulatory Care : Clinician Office/Clinic, Ambulatory Care : Urgent Care, Home Health, Hospice, 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) Multifactorial Falls Risk Assessment: Patients at risk* of future fall** who had a multifactorial risk assessment*** for falls completed within 12 months C) Plan of Care to Prevent Future Falls: Patients at risk* of future fall** with a plan of care**** for falls prevention 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 defined as at a minimum 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. ***Plan of care is defined as at a minimum consideration of appropriate assistance device AND balance, strength and gait training.
Numerator Details	**Time Window:** A twelve month measurement period This measure has three rates. The numerator details for the three rates are as follows: A) Screening for Future Fall Risk: Patients are considered to be numerator compliant if any of the following codes are present in the patient record. CPT Category II code: 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 OR CPT

	0101 Falls: Screening, risk-assessment, and plan of care to prevent future falls
	Category II code: 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 B) Multifactorial Falls Risk Assessment: All patients who have a risk assessment for falls 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. 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. 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. CPT II 3288F: Falls risk assessment documented C) Plan of Care to Prevent Future Falls: All patients who have plan of care for fall risks completed in the 12 month measurement period comprised of consideration of appropriate assistance device AND balance, strength and gait training. Consideration of appropriate assistance device: Documentation that an assistive device was provided or considered, or referral for evaluation for an appropriate assistance device 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. 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. CPT II 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) Multifactorial Falls Risk Assessment & Plan of Care to Prevent Future Falls: All patients aged 65 years and older 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) seen by an eligible provider in the past year.
Denominator Details	**Time Window:** A twelve month measurement period

	0101 Falls: Screening, risk-assessment, and plan of care to prevent future falls
	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. CPT codes for Screening for Future Fall Risk: 97001, 97002, 97003, 97004, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 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, 99387, 99397, 99401, 99402, 99403, 99404 B & C) Multifactorial Falls Risk Assessment & Plan of Care to Prevent Future Falls: 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. CPT Code: for Risk Assessment for Falls & Plan of Care for Falls: 97001, 97002, 97003, 97004, 99201, 99202, 99203, 99204, 99205, 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 AND Report the following CPT Category II code to confirm a history of 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 considered exclusion to this measure.
Exclusion Details	Patients are considered to be excluded from measurement if any of the following codes are present in the patient record: CPT II Category II code: 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	Measure Calculation For performance purposes, this measure is calculated by creating a fraction with the following components: Denominator, Numerator, and Exclusions. Step 1: Determine the eligible population. The eligible population is all the patients aged 65 years and up. Step 2: Determine number of patients meeting the denominator criteria for (A) screening for future fall risk as specified in Section 2a1.7 above. The denominator includes all patients 65 and up seen by a health care provider in the measurement

	0101 Falls: Screening, risk-assessment, and plan of care to prevent future falls
	year. Step 3: Determine the number of patients who meet the numerator criteria for (A) screening for future fall risk as specified in section 2a1.3 above. The numerator includes all patients in the denominator population (step 2) who were screened for future fall risk as least once within a twelve month period. Step 4: 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 5: Determine the number of patients from Step 3 who meet the denominator criteria for (B) multifactorial falls risk assessment and (C) plan of care to prevent future falls as specified in section 2a1.3. Step 6: Determine the number of patients who meet the numerator criteria for (B) multifactorial falls risk assessment as specified in section 2a1.3 above. The numerator includes all patients in the denominator (step 5) who received a risk assessment within 12 months. Step 7: Determine the number of patients who meet the numerator criteria for (C) plan of care to prevent future falls as specified in section 2a1.3 above. The numerator includes all patients in the denominator (step 5) population with a documented plan of care for falls within 12 months. Step 8: 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 9: Calculate rates as follows (A) screening for future fall risk = step 3/step 4; (B) multifactorial risk assessment= step 6/step 8; (C) plan of care to prevent future falls = step 7/step 8.
Copyright/ Disclaimer	Physician Performance Measures (Measures) and related data specifications, developed by the American Medical Association (AMA) in collaboration with the Physician Consortium for Performance Improvement (the Consortium) and the National Committee for Quality Assurance (NCQA) pursuant to government sponsorship under subcontract 6205-05-054 with Mathematica Policy Research, Inc. under contract 500-00-0033 with Centers for Medicare & Medicaid Services. These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and the AMA, (on behalf of the Consortium) or NCQA. Neither the AMA, NCQA, Consortium nor its members shall be responsible for any use of the Measures. THE MEASURES AND SPECIFICATIONS ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND.

	0101 Falls: Screening, risk-assessment, and plan of care to prevent future falls
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	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 and Unassisted Falls per 1000 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 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 injury falls are incident reports, patient medical records (including electronic health records). URL http://www.nursingquality.org/ none needed - Reference on left-hand side of web page: "ANA´s NQF-Endorsed Measure Specifications" Attachment falls codebook.pdf
Level	Clinician : Team
Setting	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Rehabilitation
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	**Time Window:** Calculations are performed to produce monthly fall rate per 1000 patient days; then quarterly fall rate is calculated as a mean of the 3 months. 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 vsitors • 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

	0141 Patient fall rate
	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 • Month • Year • Event Type (fall, assisted fall, repeat fall) • Type of Unit Data elements: optional .Age • Gender • Fall Risk Assessment prior to fall • Fall Risk score . Was patient at fall risk (yes/no) . Time since last risk assessment • Fall Prevention Protocol . Whether physical restraints in use at time of fall . Prior fall same month
Denominator Statement	Denominator Statement: Patient days by hospital 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. •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	**Time Window:** Calculations are performed to produce monthly patient days; then quarterly fall rate is calculated as a mean of the 3 months. 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

	0141 Patient fall rate
	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 five (5) 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-Midnight Census + Patient Days from Average Hours for Short Stay Patients This method is the least accurate method for collecting short stay patient hours on units that have both in-patients and short stay patients. The short stay average is to be obtained from a special study documenting the time spent by short stay patients on specific unit types. This pilot study should cover a month of data and should be repeated every year. Average short stay days are reported separately and added by NDNQI with midnight census to obtain patient days. The average daily hours should be multiplied by the number of days in the month and the product divided by 24 to produce average short stay days. •Method 4-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 5-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 4. 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.)

	0141 Patient fall rate
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. Note: rates are per unit; a hospital rate is not calculated.
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. N/A
Stratification	Stratification by unit type: Adult In-patient Patient Population Limited to units generally caring for patients over 16 years old. • 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. Rehabilitation In-patient Patient Population 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. • Adult Limited to units generally caring for rehab patients over 16 years old. Optional specialty designations include: Brain Injury/SCI, Cardiopulmonary, Neuro/Stroke and

	0141 Patient fall rate
	Orthopedic/Amputee Rehab units.
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 perform calculations to produce monthly fall rate per 1000 patient days; then calculate quarterly fall rate as mean of the 3 months. Attachment Fall_and_Unassisted fall rate flow charts.pdf
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	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 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). URL http://www.nursingquality.org/ none needed - Reference on left-hand side of web page: "ANA´s NQF-Endorsed Measure Specifications" Attachment falls codebook-634488471691406810.pdf
Level	Clinician : Team
Setting	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Rehabilitation
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	**Time Window:** Calculations are performed to produce monthly injury fall rate per 1000 patient days; then quarterly injury fall rate is calculated as mean of the 3 months. 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

	0202 Falls with injury
	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. 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., when you are 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 Data elements: optional . Age • Gender • Fall Risk Assessment prior to fall • Fall Risk score . Was patient at fall risk (yes/no) . Time since last risk assessment • Fall Prevention Protocol . Whether physical restraints in use at time of fall . Prior fall same month
Denominator Statement	Denominator Statement: Patient days by Type of Unit during the calendar month.

	0202 Falls with injury
	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. •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	**Time Window:** Calculations are performed to produce monthly patient days; then quarterly patient days are calculated as mean of the 3 months. 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 five (5) 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-Midnight Census + Patient Days from Average Hours for Short Stay Patients This method is the least accurate method for collecting short stay patient hours on units that have both in-patients and short stay patients. The short stay average is to be obtained from a special study documenting the time spent by short stay patients on specific unit types. This pilot study should cover a month of data and should be repeated every year. Average short stay days are reported separately and added by NDNQI with midnight census to obtain patient days. The average daily hours should be multiplied by the number of days in the month and the product divided by 24 to produce average short stay days.

	0202 Falls with injury
	•Method 4-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 5-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 4. 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. Note: rates are per unit; a hospital total is not calculated.
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. N/A
Stratification	Stratification by unit type: Adult In-patient Patient Population Limited to units generally caring for patients over 16 years old. • 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,

	0202 Falls with injury
	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. Rehabilitation In-patient Patient Population 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. • 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.
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 perform calculations to produce monthly injury fall rate per 1000 patient days; then calculate quarterly injury fall rate aa the mean of the 3 months. Attachment Injury Fall Rate Flowchart.pdf
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	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. URL https://www.nursingquality.org/ none needed - Reference on left-hand side of web page: "ANA´s NQF-Endorsed Measure Specifications" Attachment Codebook_staffing-634686172961823693.pdf
Level	Clinician : Team
Setting	Behavioral Health/Psychiatric : Inpatient, Hospital/Acute Care Facility, 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	**Time Window:** Nursing care hours for each in-patient unit are collected by the calendar month. 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

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

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
	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 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	**Time Window:** Same as numerator; Nursing care hours for each in-patient unit are collected by the calendar month. 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

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

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

	0204 Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
	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. Attachment Nursing_Staff_Skill_Mix_flowcharts.pdf
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	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. URL https://www.nursingquality.org/ none needed - Reference on left-hand side of web page: "ANA´s NQF-Endorsed Measure Specifications" Attachment Codebook_staffing.pdf
Level	Clinician : Team
Setting	Behavioral Health/Psychiatric : Inpatient, Hospital/Acute Care Facility, 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	**Time Window:** Nursing care hours for each in-patient unit are collected by the calendar month. 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

	0205 Nursing hours per patient day
	• 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: 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)

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	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	**Time Window:** Patient days for each in-patient unit are collected by the calendar month. 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 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-Midnight Census + Patient Days from Average Hours for Short Stay Patients This method has been eliminated from the acceptable list of reporting methods and is no longer a reporting option starting the first quarter of 2012. Method 4-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 5-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 4. 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

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	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 4, 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. N/A
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

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	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 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

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	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. Attachment Nursing_Hours_per_Patient_Day_Flowcharts.pdf
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	0206 Practice Environment Scale - Nursing Work Index (PES-NWI) (composite and five subscales)
Steward	The Joint Commission
Description	Practice Environment Scale-Nursing Work Index (PES-NWI) is a survey based measure of the nursing practice environment completed by staff registered nurses; includes mean scores on index subscales and a composite mean of all subscale scores.
Type	Structure
Data Source	Healthcare Provider Survey Practice Environment Scale-Nursing Work Index (PES-NWI) Survey URL http://www.jointcommission.org/national_quality_forum_nqf_endorsed_nursing-sensitive_care_performance_measures/ URL http://www.jointcommission.org/national_quality_forum_nqf_endorsed_nursing-sensitive_care_performance_measures/
Level	Clinician : Team, Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	Continuous Variable Statement: For surveys completed by Registered Nurses (RN): 12a) Mean score on a composite of all subscale scores 12b) Mean score on Nurse Participation in Hospital Affairs (survey item numbers 5, 6, 11, 15, 17, 21, 23, 27, 28) 12c) Mean score on Nursing Foundations for Quality of Care (survey item numbers 4, 14, 18, 19, 22, 25, 26, 29, 30, 31) 12d) Mean score on Nurse Manager Ability, Leadership, and Support of Nurses (survey item numbers 3, 7, 10, 13, 20) 12e) Mean score on Staffing and Resource Adequacy (survey item numbers 1, 8, 9, 12) 12f) Mean score on Collegial Nurse-Physician Relations (survey item numbers 2, 16, 24) 12g) Three category variable indicating favorable, mixed, or unfavorable practice environments: favorable = four or more subscale means exceed 2.5; mixed = two or three subscale means exceed 2.5; unfavorable = zero or one subscales exceed 2.5.
Numerator Details	**Time Window:** Annual staff nurse survey Included Populations: •Registered Nurses with direct patient care responsibilities for 50% or greater of their shift •All hospital units •Full time, part time, and flex / pool RNs employed by the hospital Excluded Populations •New hires of less than 3 months •Agency, traveler or contract nurses •Nurses in management or supervisory roles with direct patient care responsibilities less than 50% of their shift, whose primary responsibility is administrative in nature Data Elements by Subscale (with survey question/item number)

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	Nurse Participation in Hospital Affairs PES-NWI Career Development (5) PES-NWI Participation in Policy Decisions (6) PES-NWI Chief Nursing Officer Visibility (11) PES-NWI Chief Nursing Officer Authority (15) PES-NWI Advancement Opportunities (17) PES-NWI Administration Listens and Responds (21) PES-NWI Staff Nurses Hospital Governance (23) PES-NWI Nursing Committees (27) PES-NWI Nursing Administrators Consult (28) Nursing Foundations for Quality of Care PES-NWI Continuing Education (4) PES-NWI High Nursing Care Standards (14) PES-NWI Philosophy of Nursing (18) PES-NWI Nurses Are Competent (19) PES-NWI Quality Assurance Program (22) PES-NWI Preceptor Program (25) PES-NWI Nursing Care Model (26) PES-NWI Patient Care Plans (29) PES-NWI Continuity of Patient Assignments (30) PES-NWI Nursing Diagnosis (31) Nurse Manager Ability, Leadership, and Support of Nurses PES-NWI Supportive Supervisory Staff (3) PES-NWI Supervisors Learning Experiences (7) PES-NWI Nurse Manager and Leader (10) PES-NWI Recognition (13) PES-NWI Nurse Manager Backs up Staff (20) Staffing and Resource Adequacy PES-NWI Adequate Support Services (1) PES-NWI Time to Discuss Patient Problems (8) PES-NWI Enough Nurses for Quality Care (9) PES-NWI Enough Staffing (12) Collegial Nurse-Physician Relations PES-NWI Nurse and Physician Relationships (2) PES-NWI Nurse and Physician Teamwork (16) PES-NWI Collaboration (24) Composite Score Mean of subscale scores Three Category Variable Favorable = four or more subscale means exceed 2.5 Mixed = two or three subscale means exceed 2.5 Unfavorable = zero or one subscales exceed 2.5
Denominator Statement	Staff RNs
Denominator Details	**Time Window:** Not applicable

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	Not applicable
Exclusions	Not applicable
Exclusion Details	Not applicable
Risk Adjustment	No risk adjustment or risk stratification Not applicable
Stratification	12a) Mean score on a composite of all subscale scores 12b) Mean score on Nurse Participation in Hospital Affairs (survey item numbers 5, 6, 11, 15, 17, 21, 23, 27, 28) 12c) Mean score on Nursing Foundations for Quality of Care (survey item numbers 4, 14, 18, 19, 22, 25, 26, 29, 30, 31) 12d) Mean score on Nurse Manager Ability, Leadership, and Support of Nurses (survey item numbers 3, 7, 10, 13, 20) 12e) Mean score on Staffing and Resource Adequacy (survey item numbers 1, 8, 9, 12) 12f) Mean score on Collegial Nurse-Physician Relations (survey item numbers 2, 16, 24) 12g) Three category variable indicating favorable, mixed, or unfavorable practice environments: favorable = four or more subscale means exceed 2.5; mixed = two or three subscale means exceed 2.5; unfavorable = zero or one subscales exceed 2.5.
Type Score	Continuous variable better quality = higher score
Algorithm	1. Start processing. 2. Check Survey Date a. If the Survey Date is missing or invalid the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing. b. If Survey Date is valid, continue and proceed to initialization. 3. Initialization. Initialize NurseParticipationScore to 0; NursingFoundationScore to 0; NurseMgrAbilityScore to 0; StaffingScore to 0; RelationsScore to 0; TotalScore to 0; ExceedCounter to 0. Continue and proceed to PES-NWI Career Development. 4. Check PES-NWI Career Development a. If the PES-NWI Career Development is missing or zero, the case will proceed to PES-NWI Participation in Policy Decisions. b. If the PES-NWI Career Development equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Career Development to the NurseParticipationScore and proceed to PES-NWI Participation in Policy Decisions. 5. Check PES-NWI Participation in Policy Decisions a. If the PES-NWI-Participation in Policy Decisions is missing or zero, the case will proceed to PES-NWI Chief Nursing Officer Visibility. b. If the PES-NWI Participation in Policy Decisions equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Participation in Policy Decisions to the NurseParticipationScore and proceed to PES-NWI Chief Nursing Officer Visibility. 6. Check PES-NWI Chief Nursing Officer Visibility a. If the PES-NWI- Chief Nursing Officer Visibility is missing or zero, the case will proceed to PES-NWI Chief Nursing Officer Authority.

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	b. If the PES-NWI Chief Nursing Officer Visibility equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Chief Nursing Officer Visibility to the NurseParticipationScore and proceed to PES-NWI Chief Nursing Officer Authority. 7. Check PES-NWI Chief Nursing Officer Authority a. If the PES-NWI- Chief Nursing Officer Authority is missing or zero, the case will proceed to PES-NWI Advancement Opportunities. b. If the PES-NWI Chief Nursing Officer Authority equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Chief Nursing Officer Authority to the NurseParticipationScore and proceed to PES-NWI Advancement Opportunities. 8. Check PES-NWI Advancement Opportunities a. If the PES-NWI- Advancement Opportunities is missing or zero, the case will proceed to PES-NWI Administration Listens and Responds. b. If the PES-NWI Advancement Opportunities equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Advancement Opportunities to the NurseParticipationScore and proceed to PES-NWI Administration Listens and Responds. 9. Check PES-NWI Administration Listens and Responds a. If the PES-NWI Administration Listens and Responds is missing or zero, the case will proceed to PES-NWI Staff Nurses Hospital Governance. b. If the PES-NWI Administration Listens and Responds equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Administration Listens and Responds to the NurseParticipationScore and proceed to PES-NWI Staff Nurses Hospital Governance. 10. Check PES-NWI Staff Nurses Hospital Governance a. If the PES-NWI- Staff Nurses Hospital Governance is missing or zero, the case will proceed to PES-NWI Nursing Committees. b. If the PES-NWI Staff Nurses Hospital Governance equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Staff Nurses Hospital Governance to the NurseParticipationScore and proceed to PES-NWI Nursing Committees. 11. Check PES-NWI Nursing Committees a. If the PES-NWI Nursing Committees is missing or zero, the case will proceed to PES-NWI Nursing Administrators Consult. b. If the PES-NWI Nursing Committees equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Nursing Committees to the NurseParticipationScore and proceed to PES-NWI Nursing Administrators Consult. 12. Check PES-NWI Nursing Administrators Consult a. If the PES-NWI Nursing Administrators Consult is missing or zero, the case will proceed to calculate mean score on Nurse-Participation in Hospital Affairs. b. If the PES-NWI Nursing Administrators Consult equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Nursing Administrators Consult to the NurseParticipationScore and proceed to calculate mean score on Nurse-Participation in Hospital Affairs. 13. Calculate Mean Score on Nurse-Participation in Hospital Affairs. Mean Score of Nurse-Participation in Hospital Affairs equals mean of NurseParticipationScore. Assign the calculated mean score to NSC-12b. Continue and proceed to PES-NWI Continuing Education.

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	14. Check PES-NWI Continuing Education a. If the PES-NWI Continuing Education is missing or zero, the case will proceed to PES-NWI High Nursing Care Standards. b. If the PES-NWI Continuing Education equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Continuing Education to the NurseFoundationScore and proceed to PES-NWI High Nursing Care Standards. 15. Check PES-NWI High Nursing Care Standards a. If the PES-NWI High Nursing Care Standards is missing or zero, the case will proceed to PES-NWI Philosophy of Nursing. b. If the PES-NWI High Nursing Care Standards equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI High Nursing Care Standards to the NurseFoundationScore and proceed to PES-NWI Philosophy of Nursing. 16. Check PES-NWI Philosophy of Nursing a. If the PES-NWI Philosophy of Nursing is missing or zero, the case will proceed to PES-NWI Nurses Are Competent. b. If the PES-NWI Philosophy of Nursing equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Philosophy of Nursing to the NurseFoundationScore and proceed to PES-NWI Nurses Are Competent. 17. Check PES-NWI Nurses Are Competent a. If the PES-NWI Nurses Are Competent is missing or zero, the case will proceed to PES-NWI Quality Assurance Program. b. If the PES-NWI Nurses Are Competent equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Nurses Are Competent to the NurseFoundationScore and proceed to PES-NWI Quality Assurance Program. 18. Check PES-NWI Quality Assurance Program a. If the PES-NWI Quality Assurance Program is missing or zero, the case will proceed to PES-NWI Preceptor Program. b. If the PES-NWI Quality Assurance Program equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Quality Assurance Program to the NurseFoundationScore and proceed to PES-NWI Preceptor Program. 19. Check PES-NWI Preceptor Program a. If the PES-NWI Preceptor Program is missing or zero, the case will proceed to PES-NWI Nursing Care Model. b. If the PES-NWI Preceptor Program equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Preceptor Program to the NurseFoundationScore and proceed to PES-NWI Nursing Care Model. 20. Check PES-NWI Nursing Care Model a. If the PES-NWI Nursing Care Model is missing or zero, the case will proceed to PES-NWI Patient Care Plans. b. If the PES-NWI Nursing Care Model equals 1, 2, 3, or 4, add the allowable value scored for Nursing Care Model to the NurseFoundationScore and proceed to PES-NWI Patient Care Plans. 21. Check PES-NWI Patient Care Plans a. If the PES-NWI Patient Care Plans is missing or zero, the case will proceed to PES-NWI Continuity of Patient Assignments.

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	b. If the PES-NWI Patient Care Plans equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Patient Care Plans to the NurseFoundationScore and proceed to PES-NWI Continuity of Patient Assignments 22. Check PES-NWI Continuity of Patient Assignments a. If the PES-NWI Continuity of Patient Assignments is missing or zero, the case will proceed to PES-NWI Nursing Diagnosis. b. If the PES-NWI Continuity of Patient Assignments equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Continuity of Patient Assignments to the NurseFoundationScore and proceed to PES-NWI Nursing Diagnosis. 23. Check PES-NWI Nursing Diagnosis a. If the PES-NWI Nursing Diagnosis is missing or zero, the case will proceed to calculate mean score on Nursing Foundations for Quality of Care. b. If the PES-NWI Nursing Diagnosis equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Nursing Diagnosis to theNurseFoundationScore and proceed to calculate mean score on Nursing Foundations for Quality of Care. 24. Calculate Mean Score on Nursing Foundations for Quality of Care. Mean Score of Nursing Foundations for Quality of Care equals mean of NurseFoundationScore. Assign the calculated mean score to NSC-12c. Continue and proceed to PES-NWI Supportive Supervisory Staff. 25. Check PES-NWI Supportive Supervisory Staff a. If the PES-NWI Supportive Supervisory Staff is missing or zero, the case will proceed to PES-NWI Supervisors Learning Experience. b. If the PES-NWI Supportive Supervisory Staff equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Supportive Supervisory Staff to the NurseMgrAbilityScore and proceed to PES-NWI Supervisors Learning Experience. 26. Check PES-NWI Supervisors Learning Experience a. If the PES-NWI Supervisors Learning Experience is missing or zero, the case will proceed to PES-NWI Nurse Manager and Leader. b. If the PES-NWI Supervisors Learning Experience equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Supervisors Learning Experience to the NurseMgrAbilityScore and proceed to PES-NWI Nurse Manager and Leader. 27. Check PES-NWI Nurse Manager and Leader a. If the PES-NWI Nurse Manager and Leader is missing or zero, the case will proceed to PES-NWI Recognition. b. If the PES-NWI Nurse Manager and Leader equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Nurse Manager and Leader to the NurseMgrAbilityScore and proceed to PES-NWI Recognition. 28. Check PES-NWI Recognition a. If the PES-NWI Recognition is missing or zero, the case will proceed to PES-NWI Nurse Manager Backs up Staff b. If the PES-NWI Recognition equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Recognition to the NurseMgrAbilityScore and proceed to PES-NWI Nurse Manager Backs up Staff. 29. Check PES-NWI Nurse Manager Backs up Staff a. If the PES-NWI Nurse Manager Backs up Staff is missing or zero, the case will

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	proceed to calculate mean score on Nurse Manager Ability, Leadership, and Support of Nurses. b. If the PES-NWI Nurse Manager Backs up Staff equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Nurse Manager Backs up Staff to the NurseMgrAbilityScore and proceed to calculate mean score on Nurse Manager Ability, Leadership, and Support of Nurses. Calculate Mean Score on Nurse Manager Ability, Leadership, and Support of Nurses. Mean Score of Nurse Manager Ability, Leadership, and Support of Nurses equals mean of NurseMgrAbilityScore. Assign the calculated mean score to NSC-12d. Continue and proceed to PES-NWI Adequate Support Services. 30. Check PES-NWI Adequate Support Services a. If the PES-NWI Adequate Support Services is missing or zero, the case will proceed to PES-NWI Time to Discuss Patient Problems. b. If the PES-NWI Adequate Support Services equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Adequate Support Services to the StaffingScore and proceed to PES-NWI Time to Discuss Patient Problems. 31. Check PES-NWI Time to Discuss Patient Problems a. If the PES-NWI Time to Discuss Patient Problems is missing or zero, the case will proceed to PES-NWI Enough Nurses for Quality Care. b. If the PES-NWI Time to Discuss Patient Problems equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Time to Discuss Patient Problems to the StaffingScore and proceed to PES-NWI Enough Nurses for Quality Care. 32. Check PES-NWI Enough Nurses for Quality Care a. If the PES-NWI Enough Nurses for Quality Care is missing or zero, the case will proceed to PES-NWI Enough Staffing. b. If the PES-NWI Enough Nurses for Quality Care equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Enough Nurses for Quality Care to the StaffingScore and proceed to PES-NWI Enough Staffing. 33. Check PES-NWI Enough Staffing a. If the PES-NWI Enough Staffing is missing or zero, the case will proceed to calculate mean score on Staffing and Resource Adequacy. b. If the PES-NWI Enough Staffing equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Enough Staffing to the StaffingScore and proceed to calculate mean score on Staffing and Resource Adequacy. 34. Calculate Mean Score on Staffing and Resource Adequacy. Mean Score of Staffing and Resource Adequacy equals mean of StaffingScore. Assign the calculated mean score to NSC-12e. Continue and proceed to PES-NWI Nurse and Physician Relationships. 35. Check PES-NWI Nurse and Physician Relationships a. If the PES-NWI Nurse and Physician Relationships is missing or zero, the case will proceed to PES-NWI Nurse and Physician Teamwork. b. If the PES-NWI Nurse and Physician Relationships equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Nurse and Physician Relationships to the RelationsScore and proceed to PES-NWI Nurse and Physician Teamwork. 36. Check PES-NWI Nurse and Physician Teamwork

	0206 Practice Environment Scale - Nursing Work Index (PES-NWI) (composite and five subscales)
	a. If the PES-NWI Nurse and Physician Teamwork is missing or zero, the case will proceed to PES-NWI Collaboration. b. If the PES-NWI Nurse and Physician Teamwork equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Nurse and Physician Teamwork to the RelationsScore and proceed to PES-NWI Collaboration. 37. Check PES-NWI Collaboration a. If the PES-NWI Collaboration is missing or zero, the case will proceed to calculate mean score on Collegial Nurse-Physician Relations. b. If the PES-NWI Collaboration equals 1, 2, 3, or 4, add the allowable value scored for PES-NWI Collaboration to the RelationsScore and proceed to calculate mean score on Collegial Nurse-Physician Relations. 38. Calculate Mean Score on Collegial Nurse-Physician Relations. Mean Score of Collegial Nurse-Physician Relations equals mean of RelationsScore. Assign the calculated mean score to NSC-12f. Continue and proceed to calculate the Total Score on composite of all subscale scores. 39. Calculate Total Score on a composite of all subscale scores. Total Score of a composite of all subscale scores equals the sum of NurseParticipationScore, NursingFoundationScore, NurseMgrAbilityScore, StaffingScore, and RelationsScore. Continue and proceed to calculate Mean Score on a composite of all subscale scores. 40. Calculate Mean Score on a composite of all subscale scores. Mean Score of a composite of all subscale scores equals the mean of Total Score on a composite of all subscale scores. Assign the calculated mean score to NSC-12a. Continue and proceed to Mean Score on NurseParticipationScore. 41. Check Mean Score on NurseParticipationScore a. If the score of Mean Score on NurseParticipationScore is less than or equal to 2.5, the case will proceed to Mean Score on NursingFoundationScore. b. If the score of Mean Score on NurseParticipationScore is greater than 2.5, add 1 to ExceedCounter and proceed to Mean Score on NursingFoundationScore. 42. Check Mean Score on NursingFoundationScore a. If the score of Mean Score on NursingFoundationScore is less than or equal to 2.5, the case will proceed to Mean Score on NurseMgrAbilityScore. b. If the score of Mean Score on NursingFoundationScore is greater than 2.5, add 1 to ExceedCounter and proceed to Mean Score on NurseMgrAbilityScore. 43. Check Mean Score on NurseMgrAbilityScore a. If the score of Mean Score on NurseMgrAbilityScore is less than or equal to 2.5, the case will proceed to Mean Score on StaffingScore. b. If the score of Mean Score on NurseMgrAbilityScore is greater than 2.5, add 1 to ExceedCounter and proceed to Mean Score on StaffingScore. 44. Check Mean Score on StaffingScore a. If the score of Mean Score on StaffingScore is less than or equal to 2.5, the case will proceed to Mean Score on RelationsScore. b. If the score of Mean Score on StaffingScore is greater than 2.5, add 1 to ExceedCounter and proceed to Mean Score on RelationsScore. 45. Check Mean Score on RelationsScore a. If the score of Mean Score on RelationsScore is less than or equal to 2.5, the

	0206 Practice Environment Scale - Nursing Work Index (PES-NWI) (composite and five subscales)
	case will proceed to ExceedCounter. b. If the score of Mean Score on RelationsScore is greater than 2.5, add 1 to ExceedCounter and proceed to ExceedCounter. 46. Check ExceedCounter a. If ExceedCounter is greater than or equal to 4, the case will proceed to a Measure Category Assignment of “Favorable”. Stop processing. b. If ExceedCounter is greater than or equal to 2 and less than 4, the case will proceed to a Measure Category Assignment of “Mixed”. Stop processing. c. If ExceedCounter is greater than or equal to 0 and less than 2, the case will proceed to a Measure Category Assignment of “Unfavorable”. Stop processing. Attachment PES_NWI_algorithm.doc
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	0266 Patient fall
Steward	Ambulatory Surgical Centers Quality Collaborative
Description	Percentage of ASC admissions experiencing a fall in the ASC.
Type	Outcome
Data Source	Paper Records ASC medical records, as well as incident/occurrence reports, and variance reports may serve as data sources. No specific collection instrument is required although the ASC Quality Collaboration has developed a sample data collection instrument that may be used as desired. Facilities may use any collection instrument that allows tracking of all patient falls in the ASC. URL http://ascquality.org/documents/ASCQualityCollaborationImplementationGuide.pdf Not needed URL http://ascquality.org/documents/ASCQualityCollaborationImplementationGuide.pdf Not needed
Level	Facility
Setting	Ambulatory Care : Ambulatory Surgery Center (ASC)
Numerator Statement	ASC admissions experiencing a fall in the ASC.
Numerator Details	**Time Window:** In-facility, prior to discharge DEFINITIONS: Admission: Completion of registration upon entry into the facility. Fall: A sudden, uncontrolled, unintentional downward displacement of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions (National Center for Patient Safety).
Denominator Statement	All ASC admissions.
Denominator Details	**Time Window:** In-facility, prior to discharge DEFINITIONS: Admission: Completion of registration upon entry into the facility.
Exclusions	ASC admissions experiencing a fall outside the ASC.
Exclusion Details	Falls occurring outside the confines of the ASC are excluded.
Risk Adjustment	No risk adjustment or risk stratification None
Stratification	This measure is not stratified
Type Score	Rate/proportion better quality = lower score
Algorithm	The number of admissions experiencing a fall in the ASC is divided by the number of ASC admissions during the reporting period, yielding the rate of patient falls in the ASC for the reporting period.
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	0337 Pressure ulcer rate (PDI 2)
Steward	Agency for Healthcare Research and Quality
Description	Percent of discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of pressure ulcer in any secondary diagnosis field and ICD-9-CM code of pressure ulcer stage III or IV (or unstagable) in any secondary diagnosis field
Type	Outcome
Data Source	Administrative claims Healthcare Cost and Utilization Project State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). Agency for Healthcare Research and Quality, Rockville, MD. URL http://www.hcup-us.ahrq.gov/sidoverview.jsp Not applicable URL http://qualityindicators.ahrq.gov/Downloads/Software/WinQI/V43/AHRQ%20QI%20Software%20Instructions,%20WinQI.pdf Not applicable
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of pressure ulcer in any secondary diagnosis field and ICD-9-CM code of pressure ulcer stage III or IV (or unstagable) in any secondary diagnosis field.
Numerator Details	**Time Window:** User may specify the time window; generally one calendar year ICD-9-CM Pressure ulcer diagnosis codes: 7070* PRESSURE ULCER 70700 PRESSURE ULCER SITE NOS (OCT04) 70701 PRESSURE ULCER, ELBOW (OCT04) 70702 PRESSURE ULCER, UP BACK (OCT04) 70703 PRESSURE ULCER, LOW BACK (OCT04) 70704 PRESSURE ULCER, HIP (OCT04) 70705 PRESSURE ULCER, BUTTOCK (OCT04) 70706 PRESSURE ULCER, ANKLE (OCT04) 70707 PRESSURE ULCER, HEEL (OCT04) 70709 PRESSURE ULCER, SITE NEC (OCT04) *No longer valid in FY2005

	0337 Pressure ulcer rate (PDI 2)
	ICD-9-CM Pressure ulcer stage diagnosis codes*: 70723 PRESSURE ULCER, STAGE III 70724 PRESSURE ULCER, STAGE IV 70725 PRESSURE ULCER, UNSTAGEBL * Valid for discharges on or after 10/1/2008
Denominator Statement	All surgical and medical discharges under age 18 defined by specific DRGs or MS-DRGs
Denominator Details	**Time Window:** User may specify the time window; generally one calendar year See Pediatric Quality Indicators Appendices: - Appendix A – Operating Room Procedure Codes - Appendix B – Surgical Discharge DRGs - Appendix C – Surgical Discharge MS-DRGs - Appendix D – Medical Discharge DRGs - Appendix E – Medical Discharge MS-DRGs Link to PDI appendices: http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/TechnicalSpecifications/PDI%20Appendices.pdf
Exclusions	Exclude cases: - neonates - with length of stay of less than 5 days - with preexisting condition of pressure ulcer (see Numerator) (principal diagnosis or secondary diagnosis present on admission) - in MDC 9 (Skin, Subcutaneous Tissue, and Breast) - with an ICD-9-CM procedure code for debridement or pedicle graft before or on the same day as the major operating room procedure (surgical cases only) - with an ICD-9-CM procedure code of debridement or pedicle graft as the only major operating room procedure (surgical cases only) - 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 14 (pregnancy, childbirth, and puerperium) - with missing discharge 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 Link to PDI appendices: http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/TechnicalSpecifications/PDI%20Appendices.pdf
Exclusion Details	ICD-9-CM Debridement or pedicle graft procedure codes: 8345 OTHER MYECTOMY

	0337 Pressure ulcer rate (PDI 2)
	8622 EXC WOUND DEBRIDEMENT 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, birthweight (500g groups), age in days (29-60, 61-90, 91+), age in years (in 5-year age groups), modified CMS DRG and AHRQ CCS comorbities. The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Data (SID) for the years 2008, a database consisting of 43 states and approximately 6 million pediatric discharges. 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. Covariates used in this measures: Age in Years 13 to 18 Age in Years 6 to 13 MDC 1 High Risk (hemiplegia, paraplegia, or quadriplegia, spina bifida, anoxic brain, other continuous mechanical ventilation code for 96 or more consecutive hours) URL http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/Risk%20Adjustment%20Tables%20PDI%204.3.pdf Not applicable
Stratification	PDI 2 stratifies rates by high-risk vs. lower risk groups. High risk group: ICD-9-CM Hemiplegia, paraplegia, or quadriplegia diagnosis codes: 33371 ATHETOID CEREBRAL PALSY 3420 FLACCID HEMIPLEGIA 34200 FLCCD HMIPLGA UNSPF SIDE 34201 FLCCD HMIPLGA DOMNT SIDE

	0337 Pressure ulcer rate (PDI 2)
	34202 FLCCD HMIPLG NONDMNT SDE 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

	0337 Pressure ulcer rate (PDI 2)
	34403 QUADRPLG C5-C7, COMPLETE 34404 QUADRPLG C5-C7, INCOMPLT 34409 OTHER QUADRIPLEGIA 3441 PARAPLEGIA 3442 DIPLEGIA OF UPPER LIMBS 3443 MONOPLEGIA OF LOWER LIMB 34430 MONPLGA LWR LMB UNSP SDE 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 3446 CAUDA EQUINA SYNDROME 34460 CAUDA EQUINA SYNDROME, WITHOUT MENTION OF NEUROGENIC BLADDER 34461 CAUDA EQUINA SYNDROME, WITH NEUROGENIC BLADDER 3448 OTHER SPECIFIED PARALYTIC SYNDROMES 34481 LOCKED-IN STATE 34489 OTH SPCF PARALYTIC SYND 3449 PARALYSIS, UNSPECIFIED 43820 LATE EF-HEMPLGA SIDE NOS 43821 LATE EF-HEMPLGA DOM SIDE

	0337 Pressure ulcer rate (PDI 2)
	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 HYPOXIC-ISCHEMIC ENCEPHALOPATHY, UNSPECIFIED (OCT09) 76872 MODERATE HYPOXIC-ISCHEMIC ENCEPHALOPATHY (OCT09) 76873 SEVERE HYPOXIC-ISCHEMIC ENCEPHALOPATHY (OCT09) ICD-9-CM Spina bifida diagnosis codes: 74100 SPINA BIFIDA, W HYDROCEPHALUS UNSPECIFIED REGION 74101 SPINA BIFIDA, W HYDROCEPHALUS CERVICAL REGION 74102 SPINA BIFIDA, W HYDROCEPHALUS DORSAL REGION 74103 SPINA BIFIDA, W HYDROCEPHALUS LUMBAR REGION 74190 SPINA BIFIDA, W/O HYDROCEPHALUS UNSPECIFIED REGION 74191 SPINA BIFIDA, W/O HYDROCEPHALUS CERVICAL REGION 74192 SPINA BIFIDA, W/O HYDROCEPHALUS DORSAL REGION 74193

	0337 Pressure ulcer rate (PDI 2)
	SPINA BIFIDA, W/O HYDROCEPHALUS LUMBAR REGION 7687 HYPOXIC-ISCHEMIC ENCEPH 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 ADD CONTINUOUS MECHANICAL VENTILATION >=96 HRS Low risk group: All patients not qualifying as high risk.
Type Score	Rate/proportion better quality = lower score
Algorithm	Each indicator is expressed as a rate, is defined as outcome of interest / population at risk or numerator / denominator. The AHRQ Quality Indicators (AHRQ QI) software performs six steps to produce the rates. 1) Discharge-level data is used to mark inpatient records containing the outcome of interest and 2) the population at risk. For provider indicators, the population at risk is also derived from hospital discharge records; for area indicators, the population at risk is derived from U.S. Census data. 3) Calculate observed rates. Using output from steps 1 and 2, rates are calculated for user-specified combinations of stratifiers. 4) Calculate expected rates. Regression coefficients from a reference population database are applied to the discharge records and aggregated to the provider or area level. For indicators that are not risk-adjusted, this is the reference population rate. 5) Calculate risk-adjusted rate. Use the indirect standardization to account for case-mix. For indicators that are not risk-adjusted, this is the same as the observed rate. 6) Calculate smoothed rate. A Univariate shrinkage factor is applied to the risk-adjusted rates. The shrinkage estimate reflects a reliability adjustment unique to each indicator URL Not applicable http://qualityindicators.ahrq.gov/Downloads/Resources/Publications/2011/QI%20Empirical%20Methods%2005-03-11.pdf
Copyright/ Disclaimer	Not applicable Not applicable

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2)
Steward	Agency for Healthcare Research and Quality
Description	Percent of discharges with disposition of "deceased" (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator
Type	Outcome
Data Source	Administrative claims HCUP State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). Agency for Healthcare Research and Quality, Rockville, MD. URL http://www.hcup-us.ahrq.gov/sidoverview.jsp Not applicable URL http://qualityindicators.ahrq.gov/Downloads/Software/WinQI/V43/AHRQ%20QI%20Software%20Instructions,%20WinQI.pdf Not applicable
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	Discharges with disposition of "deceased" (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator
Numerator Details	**Time Window:** User may specify the time window; generally one calendar year Discharges with disposition of "deceased" (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator. User may specify the time window; generally one calendar year.
Denominator Statement	Discharges, 18 years and older or MDC 14 (pregnancy, childbirth, and puerperium), in DRGs or MS-DRGs with less than 0.5% mortality rate. If a DRG is divided into two groups with or without "comorbidities or complications" or an MS-DRG is divided into three groups - with major, other, or no comorbidities or complications - then both DRGs or all MS-DRGs must have mortality rates below 0.5% to qualify for inclusion.
Denominator Details	**Time Window:** User may specify the time window; generally one calendar year Presently low-mortality MS DRGs are used in the denominator definition. Please note that the low-mortality DRGs are no longer in use, but are presented for historical compatibility only. Low-mortality MS-DRG codes: 069 TRANSIENT ISCHEMIA 113 ORBITAL PROCEDURES W CC/MCC 114 ORBITAL PROCEDURES W/O CC/MCC 123 NEUROLOGICAL EYE DISORDERS 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 483 MAJOR JOINT & LIMB REATTACHMENT PROC OF UPPER EXTREMITY W CC/MCC

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2)
	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 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 537 SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH W CC/MCC 538 SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH W/O CC/MCC 582 MASTECTOMY FOR MALIGNANCY W CC/MCC 583 MASTECTOMY FOR MALIGNANCY 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 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 793 FULL TERM NEONATE W MAJOR PROBLEMS 794 NEONATE W OTHER SIGNIFICANT PROBLEMS 880 ACUTE ADJUSTMENT REACTION & PSYCHOSOCIAL DYSFUNCTION 881 DEPRESSIVE NEUROSES 882 NEUROSES EXCEPT DEPRESSIVE

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2)
	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 Low-mortality DRG codes: 037 ORBITAL PROCEDURES 045 NEUROLOGICAL EYE DISORDERS 050 SIALOADENECTOMY 051 SALIVARY GLAND PROCEDURES EXCEPT SIALOADENECTOMY 065 DYSEQUILIBRIUM 096 BRONCHITIS & ASTHMA AGE >17 W CC 097 BRONCHITIS & ASTHMA AGE >17 W/O CC 140 ANGINA PECTORIS 141 SYNCOPE & COLLAPSE W CC 142 SYNCOPE & COLLAPSE W/O CC 143 CHEST PAIN 228 MAJOR THUMB OR JOINT PROC,OR OTH HAND OR WRIST PROC W CC 229 HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC, W/O CC 237 SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH 257 TOTAL MASTECTOMY FOR MALIGNANCY W CC 258 TOTAL MASTECTOMY FOR MALIGNANCY W/O CC 323 URINARY STONES W CC, &/OR ESW LITHOTRIPSY 328 URETHRAL STRICTURE AGE >17 W CC 329 URETHRAL STRICTURE AGE >17 W/O CC 334 MAJOR MALE PELVIC PROCEDURES W CC 335 MAJOR MALE PELVIC PROCEDURES W/O CC 356 FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES 358 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC 359 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC 369 MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS 370 CESAREAN SECTION W CC 371 CESAREAN SECTION W/O CC 372 VAGINAL DELIVERY W COMPLICATING DIAGNOSES 373 VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES 374 VAGINAL DELIVERY W STERILIZATION &/OR D&C 375 VAGINAL DELIVERY W O.R. PROC EXCEPT STERIL &/OR D&C 376 POSTPARTUM & POST ABORTION DIAGNOSES W/O O.R. PROCEDURE 377 POSTPARTUM & POST ABORTION DIAGNOSES W O.R. PROCEDURE 378 ECTOPIC PREGNANCY 379 THREATENED ABORTION 380 ABORTION W/O D&C 381 ABORTION W D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY 382 FALSE LABOR

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2)
	383 OTHER ANTEPARTUM DIAGNOSES W MEDICAL COMPLICATIONS 384 OTHER ANTEPARTUM DIAGNOSES W/O MEDICAL COMPLICATIONS 389 FULL TERM NEONATE W MAJOR PROBLEMS 390 NEONATE W OTHER SIGNIFICANT PROBLEMS 425 ACUTE ADJUSTMENT REACTION & PSYCHOSOCIAL DYSFUNCTION 426 DEPRESSIVE NEUROSES 427 NEUROSES EXCEPT DEPRESSIVE 428 DISORDERS OF PERSONALITY & IMPULSE CONTROL 430 PSYCHOSES 431 CHILDHOOD MENTAL DISORDERS 432 OTHER MENTAL DISORDER DIAGNOSES 433 ALCOHOL/DRUG ABUSE OR DEPENDENCE, LEFT AMA 441 HAND PROCEDURES FOR INJURIES 491 MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF UPPER EXTREMITY 499 BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W CC 500 BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W/O CC 503 KNEE PROCEDURES W/O PDX OF INFECTION 521 ALCOHOL/DRUG ABUSE OR DEPENDENCE W CC 522 ALC/DRUG ABUSE OR DEPEND W REHABILITATION THERAPY W/O CC 524 TRANSIENT ISCHEMIA
Exclusions	Exclude cases: - with any code for trauma, cancer, or 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 Link to PSI appendices: http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/TechnicalSpecifications/PSI%20Appendices.pdf
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 CMS DRG, and the AHRQ Comorbidity category. The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Data (SID) for the years 2008, a database consisting of 42 states and approximately 30 million adult discharges. 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. Sex Female Age 18 to 24 Age 25 to 29

	0347 Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2)
	Age 30 to 59 Age 65 to 69 Age 70 to 74 Age 75 to 79 Age 80 to 84 Age 85+ MDRG 413 MDRG 533 MDRG 1915 MDRG 2019 MDC 19 TRNSFER Transfer-in NOPRDAY Procedure Days Data Not Available COMORB CHF COMORB NEURO COMORB CHRNLUNG COMORB HYPOTHY COMORB RENLFAIL COMORB OBESE COMORB ANEMDEF URL http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/Risk%20Adjustment%20Tables%20PSI%204.3.pdf Not applicable
Stratification	Not applicable
Type Score	Rate/proportion better quality = lower score
Algorithm	Each indicator is expressed as a rate, is defined as outcome of interest / population at risk or numerator / denominator. The AHRQ Quality Indicators (AHRQ QI) software performs six steps to produce the rates. 1) Discharge-level data is used to mark inpatient records containing the outcome of interest and 2) the population at risk. For provider indicators, the population at risk is also derived from hospital discharge records; for area indicators, the population at risk is derived from U.S. Census data. 3) Calculate observed rates. Using output from steps 1 and 2, rates are calculated for user-specified combinations of stratifiers. 4) Calculate expected rates. Regression coefficients from a reference population database are applied to the discharge records and aggregated to the provider or area level. For indicators that are not risk-adjusted, this is the reference population rate. 5) Calculate risk-adjusted rate. Use the indirect standardization to account for case-mix. For indicators that are not risk-adjusted, this is the same as the observed rate. 6) Calculate smoothed rate. A Univariate shrinkage factor is applied to the risk-adjusted rates. The shrinkage estimate reflects a reliability adjustment unique to each indicator URL Not applicable http://qualityindicators.ahrq.gov/Downloads/Resources/Publications/2011/QI%20Empirical%20Methods%2005-03-11.pdf
Copyright/ Disclaimer	Not applicable Not applicable

	0537 Multifactor fall risk assessment conducted in patients 65 and older
Steward	Centers for Medicare and Medicaid Services
Description	Percentage of home health episodes of care in which patients 65 and older had a multi-factor fall risk assessment at start/resumption of care.
Type	Process
Data Source	Electronic Clinical Data OASIS-C URL https://www.cms.gov/OASIS/Downloads/oasisp200.zip URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQIOASISCAllTimePoint.pdf
Level	Facility
Setting	Home Health
Numerator Statement	Number of home health episodes of care in which patients 65 and older had a multi-factor fall risk assessment at start/resumption of care.
Numerator Details	**Time Window:** CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. 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	**Time Window:** CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. 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's age was less than 65 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 -(M0030) Start of care date minus (M0066) Patient Birth date is less than 65 years PLUS Number of home health patient episodes of care where at start of episode: -(M0100) Reason for Assessment = 3 (Resumption of care) AND -(M0032) Resumption of care date minus (M0066) Patient Birth date is less than 65 years 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-

	0537 Multifactor fall risk assessment conducted in patients 65 and older
	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 N/A - process measure.
Stratification	N/A - measure not stratified.
Type Score	Rate/proportion better quality = higher score
Algorithm	Technical Specifications available at: https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf
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	0538 Pressure ulcer prevention and care
Steward	Centers for Medicare and 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 during Short Term Episodes of Care: Percentage of short term 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 : Electronic Health Record OASIS-C instrument URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQIOASISCAllTimePoint.pdf URL https://www.cms.gov/OASIS/Downloads/oasisp200.zip
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 during Short Term Episodes of Care: 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	**Time Window:** CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. 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 during Short Term Episodes of Care: Number of home health patient episodes of care where at end of episode: (M2400e) Pressure Ulcer Prevention Plan implemented = 1 (yes)
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.

	0538 Pressure ulcer prevention and care
	Pressure Ulcer Prevention Implemented during Short Term Episodes of Care: Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.
Denominator Details	**Time Window:** CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. 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 during Short Term Episodes of Care: 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 during Short Term Episodes of Care: 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) PLUS Number of home health patient episodes of care where at least one assessment with (M0100) Reason for Assessment = 4 (Recertification follow-up reassessment) or 5 (Other follow-up) was completed between the start and end of the episode of care (Long-Term Care Exclusion). 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

	0538 Pressure ulcer prevention and care
	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 N/A - process measure
Stratification	N/A - not stratified
Type Score	Rate/proportion better quality = higher score
Algorithm	Calculation algorithm available in the Technical Specifications URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf
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	1716 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia outcome measure
Steward	Centers for Disease Control and Prevention
Description	Standardized infection ratio (SIR) of hospital-onset unique blood source MRSA Laboratory-identified events (LabID events) among all inpatients in the facility
Type	Outcome
Data Source	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Paper Records NHSN Laboratory-identified MDRO or CDI Event form and NHSN MDRO and CDI Prevention Process and Outcome Measures Monthly Monitoring Form URL http://www.cdc.gov/nhsn/forms/57.128_LabIDEvent_BLANK.pdf, http://www.cdc.gov/nhsn/forms/57.127_MDROMonthlyReporting_BLANK.pdf URL http://www.cdc.gov/nhsn/forms/instr/57_128_Instructions.pdf, http://www.cdc.gov/nhsn/forms/instr/57_127_Instructions.pdf
Level	Facility, Population : National, Population : State
Setting	Behavioral Health/Psychiatric : Inpatient, Dialysis Facility, Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility, Post Acute/Long Term Care Facility : Rehabilitation
Numerator Statement	Total number of observed hospital-onset unique blood source MRSA LabID events among all inpatients in the facility
Numerator Details	**Time Window:** Cases are included if MRSA is identified from a unique blood culture that is classfied as a hospital-onset LabID event and is collected from an inpatient in the facility during a month in which the facility chose to perform surveillance. It is necessary 1. Definition of MRSA – Includes Staphylococcus aureus cultured from any specimen that tests oxacillin-resistant, cefoxitin-resistant, or methicillin-resistant by standard susceptibility testing methods, or by a positive result from molecular testing for mecA and PBP2a; these methods may also include positive results of specimens tested by any other FDA approved PCR test for MRSA 2. Definition of MRSA isolate - Any specimen obtained for clinical decision making testing positive for MRSA. This excludes any tests related to active surveillance testing/culturing. 3. Definition of unique MRSA blood isolate - An MRSA isolate from blood in a patient that is the first MRSA isolate from any specimen for the patient in the location in that month or an MRSA isolate from blood in a patient with no prior positive blood culture for MRSA in the current inpatient location in <= 2 weeks. 4. Definition of MRSA LabID event - All non-duplicate unique blood source MRSA isolates, including specimens collected during an emergency department or other outpatient clinic visit, if collected the same day as patient admission to the facility. 5. Definition of hospital-onset LabID event – LabID event with specimen collected >3 days after admission to the hospital (i.e. on or after calendar day 4 of admission, where date of admission = day 1)

	1716 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia outcome measure
	6. Definition of inpatient - A patient who is located in an inpatient location for care and treatment at the time of specimen collection.
Denominator Statement	Total number of expected hospital-onset unique blood source MRSA LabID events, calculated by multiplying the number of inpatient days for the facility by the hospital-onset MRSA LabID event rate for the same types of facilities (obtained from the standard population).
Denominator Details	**Time Window:** A facility-wide number of inpatient days and admissions is collected for the surveillance period. An expected number of hospital-onset unique blood source MRSA LabID events for the facility is calculated using the standard population's baseline data from 1. Number of inpatient days for the facility for the time period under surveillance. The number of inpatient days is obtained by summing the daily count of patients occupying beds in each inpatient location in the facility over the time period under surveillance. The count of patients occupying inpatient beds is collected at the same time each day. 2. Hospital-onset MRSA LabID event rate per 1,000 patient days for similar facility types, obtained from the standard population from 2009-2010. 3. Facility information, including facility type, bedsize, and affiliation with a medical school (see 4 below) 4. Medical school affiliation categories: a. Major – a hospital that is an important part of the teaching program of a medical school and the majority of medical students rotate through multiple clinical services b. Graduate – a hospital used by the medical school for graduate trainings only (residency and/or fellowships) c. Limited – a hospital that is used in the medical school's teaching program to a limited extent 5. The CMS case mix index is also being investigated as a potential factor in determining expected number of LabID events
Exclusions	Data from patients who are not assigned to an inpatient bed are excluded from the denominator counts. These include outpatient clinic and emergency department visits.
Exclusion Details	Definition of inpatient - A patient who is located in an inpatient location for care and treatment at the time of the daily inpatient census count.
Risk Adjustment	Other Standardized Infection Ratio The SIR is a method of indirect standardization that summarizes HAI experience across a series of groups of data. The SIR compares a facility's observed number of unique hospital-onset blood MRSA LabID events for a given time period to the 2009-2010 standard population's experience, which can be used to calculate an expected number of LabID events. Dividing observed by expected numbers of LabID events produces the SIR. The rate of unique hospital-onset blood MRSA LabID events identified per 1,000 patient days from the standard population is used to calculate the number of

	1716 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia outcome measure
	expected unique hospital-onset blood MRSA LabID events for a given facility. These rates are adjusted by facility-specific factors, including facility type, facility bedsize, teaching status, medical school affiliation (major, graduate, or limited, see 2a1.7), and possibly CMS case mix index. URL No such URL. Refer to 2a1.20 N/A
Stratification	The measure will not be stratified, as it is an overall facility-wide summary measure. Facility characteristics will be used for risk adjustment, described in 2a1.13.
Type Score	Ratio better quality = lower score
Algorithm	1. Identify number of observed unique hospital-onset blood MRSA LabID events for a given time period by adding the total number of observed events across the facility 2. Calculate the number of expected hospital-onset blood MRSA LabID events for the facility by multiplying the number of inpatient days observed by the hospital-onset MRSA blood LabID event rate for similar facilities (using data from the 2009-2010 standard population) and dividing by 1,000. 3. Divide the number of observed hospital-onset blood MRSA LabID events (1 above) by the number of expected hospital-onset blood MRSA LabID events (2 above) to obtain the SIR. 4. Perform a Poisson test to compare the SIR obtained in 3 above to the nominal value of 1. P-value and confidence interval will be calculated, which can be used to assess significance of SIR. URL N/A no such URL. Refer to 2a1.20
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	1717 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Clostridium difficile Infection (CDI) outcome measure
Steward	Centers for Disease Control and Prevention
Description	Standardized infection ratio (SIR) of hospital-onset CDI Laboratory-identified events (LabID events) among all inpatients in the facility, excluding well-baby nurseries and neonatal intensive care units (NICUs)
Type	Outcome
Data Source	Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Paper Records NHSN Laboratory-identified MDRO or CDI Event Form and NHSN MDRO and CDI Prevention Process and Outcome Measures Monthly Monitoring Form URL http://www.cdc.gov/nhsn/forms/57.128_LabIDEvent_BLANK.pdf, http://www.cdc.gov/nhsn/forms/57.127_MDROMonthlyReporting_BLANK.pdf URL http://www.cdc.gov/nhsn/forms/instr/57_128_Instructions.pdf, http://www.cdc.gov/nhsn/forms/instr/57_127_Instructions.pdf
Level	Facility, Population : National, Population : State
Setting	Behavioral Health/Psychiatric : Inpatient, Dialysis Facility, Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility, Post Acute/Long Term Care Facility : Rehabilitation
Numerator Statement	Total number of observed hospital-onset CDI LabID events among all inpatients in the facility, excluding well baby-nurseries and NICUs
Numerator Details	**Time Window:** Cases are included if toxin-producing C. difficile is identified from a specimen that is classified as hospital-onset LabID event and is collected from an inpatient in the facility during a month in which the facility chose to perform surveillance. It is 1. Definition of CDI-positive laboratory assay - A positive laboratory test result for C. difficile toxin A and/or B or a toxin-producing C. difficile organism detected by culture or other laboratory means performed on a stool sample. 2. Definition of duplicate CDI-positive test - Any C. difficile toxin-positive laboratory result from the same patient and location, following a previous C. difficile toxin-positive laboratory result within the past two weeks (14 days). 3. Definition of CDI LabID event - All non-duplicate C. difficile toxin-positive laboratory results, including specimens collected during an emergency department or other outpatient clinic visit, if collected the same day as patient admission to the facility. 4. Definition of hospital-onset LabID event – LabID event with specimen collected >3 days after admission to the hospital (i.e. on or after calendar day 4 of admission, where date of admission = day 1) 5. Definition of inpatient - A patient who is located in an inpatient location for care and treatment at the time of specimen collection.
Denominator Statement	Total number of expected hospital-onset CDI LabID events, calculated by multiplying the number of inpatient days for the facility by the hospital-onset CDI LabID event

| --- | --- |
	rate for the same types of facilities (obtained from the standard population).
Denominator Details	**Time Window:** A facility-wide number of inpatient days is collected for the surveillance period minus inpatient days from neonatal intensive care units and well baby nurseries. An expected number of hospital-onset LabID events for the facility is calculated using the 1. Number of inpatient days for the facility for the time period under surveillance. The number of inpatient days is obtained by summing the daily count of patients occupying beds in each inpatient location in the facility over the time period under surveillance. The count of patients occupying inpatient beds is collected at the same time each day. 2. Hospital-onset CDI LabID event rate per 1,000 patient days for similar facility types, obtained from the standard population from 2009-2010. 3. Facility–specific information, including facility type, bedsize, and affiliation with a medical school (see 4 below). 4. Medical school affiliation categories: a. Major – a hospital that is an important part of the teaching program of a medical school and the majority of medical students rotate through multiple clinical services b. Graduate – a hospital used by the medical school for graduate trainings only (residency and/or fellowships) c. Limited – a hospital that is used in the medical school's teaching program to a limited extent 5. The CMS case mix index is also being investigated as a potential factor in determining expected number of LabID events. 5. Number of admission-prevalent CDI LabID events (identified within the first 3days after admission to the facility, where date of admission = day 1). 6. Microbiological test method used to identify C. difficile (PCR for toxin, EIA assay for toxin, stool antigen, culture, other).
Exclusions	Data from patients who are not assigned to an inpatient bed are excluded from the denominator counts, including outpatient clinic and emergency department visits. Additionally, data from well-baby nurseries and NICUs are excluded from the denominator count.
Exclusion Details	Definition of inpatient - A patient who is located in an inpatient location for care and treatment at the time of the daily inpatient census count.
Risk Adjustment	Other Standardized Infection Ratio (SIR) The SIR is a method of indirect standardization that summarizes HAI experience across a series of groups of data. The SIR compares a facility's observed number of hospital-onset CDI LabID events for a given time period to the 2009-2010 standard population's experience, which can be used to calculate an expected number of LabID events. Dividing observed by expected numbers of LabID events produces the SIR. The rate of hospital-onset CDI LabID events identified per 1,000 patient days from the standard population is used to calculate the number of expected hospital-onset CDI LabID events for a given facility. These rates are stratified by facility-specific factors, including facility type, facility bedsize, and medical school affiliation (major,

	1717 National Healthcare Safety Network (NHSN) facility-wide inpatient hospital-onset Clostridium difficile Infection (CDI) outcome measure
	graduate, or limited, see 2a1.7), the number of admission prevalent CDI LabID events, the type of microbiological test the facility uses to identify C. difficile, and possibly CMS case mix index. URL No such URL. Please refer to 2a1.20
Stratification	The measure will not be stratified, as it is an overall facility-wide summary measure. Facility characteristics will be used for risk adjustment, described in 2a1.13.
Type Score	Ratio better quality = lower score
Algorithm	1. Identify number of observed hospital-onset CDI LabID events for a given time period by adding the total number of observed events across the facility. 2. Calculate the number of expected hospital-onset CDI LabID events for the facility by multiplying the number of inpatient days observed by the hospital-onset CDI LabID event rate for similar facilities (using data from the 2009-2010 standard population) and dividing by 1,000. 3. Divide the number of observed hospital-onset CDI LabID events (1 above) by the number of expected hospital-onset CDI LabID events (2 above) to obtain the SIR. 4. Perform a Poisson test to compare the SIR obtained in 3 above to the nominal value of 1. P-value and confidence interval will be calculated, which can be used to assess significance of SIR. URL N/A No such URL exists. Refer to 2a1.20
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Appendix B: Project Steering Committee and NQF Staff

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Appendix C: Measures Endorsed in Patient Safety Since 2007

NQF Number	Title	Steward
0138	National healthcare safety network (NHSN) catheter-associated urinary tract Infection (CAUTI) outcome measure	Centers for Disease Control and Prevention
0139	National healthcare safety network (NHSN) central line-associated bloodstream infection (CLABSI) outcome measure	Centers for Disease Control and Prevention
0739	Radiation dose of computed tomography (CT)	University of California San Francisco
0740	Participation in a systematic national dose index registry	American College of Radiology
0751	Risk adjusted urinary tract infection outcome measure after surgery	American College of Surgeons
0753	American College of Surgeons – Centers for Disease Control and Prevention (ACS-CDC) harmonized procedure specific surgical site infection (SSI) outcome measure	Centers for Disease Control and Prevention
0022	Use of high risk medications in the elderly	National Committee for Quality Assurance
0263	Patient burn	Ambulatory Surgical Centers Quality Collaboration
0267	Wrong site, wrong side, wrong patient, wrong procedure, wrong implant	Ambulatory Surgical Centers Quality Collaboration
0344	Accidental puncture or laceration rate (PDI 1)	Agency for Healthcare Research and Quality
0345	Accidental puncture or laceration rate (PSI 15)	Agency for Healthcare Research and Quality
0346	Iatrogenic pneumothorax rate (PSI 6)	Agency for Healthcare Research and Quality

NQF Number	Title	Steward
0348	Iatrogenic pneumothorax rate (PDI 5)	Agency for Healthcare Research and Quality
0349	Transfusion reaction (PSI 16)	Agency for Healthcare Research and Quality
0350	Transfusion reaction (PDI 13)	Agency for Healthcare Research and Quality
0362	Foreign body left after procedure (PDI 3)	Agency for Healthcare Research and Quality
0363	Foreign body left during procedure (PSI 5)	Agency for Healthcare Research and Quality
0372	Intensive care unit venous thromboembolism prophylaxis	Agency for Healthcare Research and Quality
0373	Venous thromboembolism patients with anticoagulant overlap therapy	Agency for Healthcare Research and Quality
0450	Postoperative pulmonary embolism or deep vein thrombosis rate (PSI 12)	Agency for Healthcare Research and Quality
0419	Documentation of current medications in the medical record	Centers for Medicare and Medicaid Services
0035	Fall risk management	National Committee for Quality Assurance
0101	Falls: Screening for fall risk	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

NQF Number	Title	Steward
0206	Practice environment scale - nursing work index (PES-NWI) (composite and five subscales)	The Joint Commission
0207	Voluntary turnover	The Joint Commission
0266	Patient fall	Ambulatory Surgical Centers Quality Collaboration
0337	Pressure ulcer rate (PDI 2)	Agency for Healthcare Research and Quality
0347	Death rate in low-mortality diagnosis related groups (PSI 2)	Agency for Healthcare Research and Quality
0503	Anticoagulation for acute pulmonary embolus patients	American College of Emergency Physicians
0504	Pediatric weight documented in kilograms	American Academy of Pediatrics
0537	Multifactor fall risk assessment conducted in patients 65 and older	Centers for Medicare and Medicaid Services
0538	Pressure ulcer prevention included in plan of care	Centers for Medicare and Medicaid Services
0539	Pressure ulcer prevention implemented during short term episodes of care	Centers for Medicare and Medicaid Services
0540	Pressure ulcer risk assessment conducted	Centers for Medicare and Medicaid Services
0298	Central line bundle compliance	Institute for Healthcare Improvement
0302	Ventilator bundle	Institute for Healthcare Improvement
0510	Exposure time reported for procedures using fluoroscopy	American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI)
0530	Mortality for selected conditions	Agency for Healthcare Research and Quality

NQF Number	Title	Steward
0531	Patient safety selected indicators	Agency for Healthcare Research and Quality
0532	Pediatric patient safety for selected indicators	Agency for Healthcare Research and Quality
0555	Monthly INR monitoring for beneficiaries on warfarin	Centers for Medicare and Medicaid Services
0556	INR for beneficiaries taking warfarin and interacting anti-infective medications	Centers for Medicare and Medicaid Services
0331	Severity-standardized average length of stay- routine care (risk adjusted)	The Leapfrog Group
0456	Participation in a systematic national database for general thoracic surgery	The Society of Thoracic Surgeons
0492	Participation in a practice-based or individual quality database registry with a standard measure set	Centers for Medicare and Medicaid Services
0493	Participation by a physician or other clinician in systematic clinical database registry that includes consensus endorsed quality measures	Centers for Medicare and Medicaid Services

Appendix D: Related and Competing Measures

Comparison of falls measures: NQF #0035, #0101, #0141, #0202, #0266, #0537, #1730 and NQF #1733

**After the Steering Committee discussion of related and competing measures, the developer agreed to combine measures #0101, #1720 and #1733.*

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
Steward	National Committee for Quality Assurance	National Committee for Quality Assurance	American Nurses Association	American Nurses Association	Ambulatory Surgical Centers Quality Collaborative	Centers for Medicare and Medicaid Services	National Committee for Quality Assurance	Na Qu
Description	a) 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. b) 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.	Percentage of patients aged 65 years and older who were screened for fall risk (2 or more falls in the past year or any fall with injury in the past year) at least once within 12 months	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 and Unassisted Falls per 1000 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 ASC admissions experiencing a fall in the ASC.	Percentage of home health episodes of care in which patients 65 and older had a multi-factor fall risk assessment at start/resumption of care.	Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months	Pe ag wi ha do m
Type	Process	Process	Outcome	Outcome	Outcome	Process	Process	Pr

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
Data Source	Patient Reported Data/Survey Medicare Health Outcomes Survey (HOS) URL http://www.hosonline.org/Content/Default.aspx	Administrative claims N/A	Electronic Clinical Data, Other, Paper 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 injury falls are incident reports, patient medical records (including electronic health records). URL http://www.nursingquality.org/ none needed - Reference on left-hand side of web page: "ANA´s NQF-Endorsed Measure Specifications" Attachment falls codebook.pdf	Electronic Clinical Data, Other, Paper 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). URL http://www.nursingquality.org/ none needed - Reference on left-hand side of web page: "ANA´s NQF-Endorsed Measure Specifications" Attachment falls codebook-634488471691406810.pdf	Paper Records ASC medical records, as well as incident/occurrence reports, and variance reports may serve as data sources. No specific collection instrument is required although the ASC Quality Collaboration has developed a sample data collection instrument that may be used as desired. Facilities may use any collection instrument that allows tracking of all patient falls in the ASC. URL http://ascquality.org/documents/ASCQualityCollaborationImplementationGuide.pdf Not needed URL http://ascquality.org/documents/ASCQualityCollaborationImplementationGuide.pdf Not needed	Electronic Clinical Data OASIS-C URL https://www.cms.gov/OASIS/Downloads/oasisp200.zip URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQIOASISCAllTimePoint.pdf	Administrative claims N/A	Ad
Level	Clinician : Individual, Health Plan, Population : National	Clinician : Group/Practice, Clinician : Individual, Clinician : Team	Clinician : Team	Clinician : Team	Facility	Facility	Clinician : Group/Practice, Clinician : Individual, Clinician : Team	Cl Cl Cl

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
Setting	Ambulatory Care : Ambulatory Surgery Center (ASC), Ambulatory Care : Clinician Office/Clinic, Ambulatory Care : Outpatient Rehabilitation, Ambulatory Care : Urgent Care, Behavioral Health/Psychiatric : Inpatient, Behavioral Health/Psychiatric : Outpatient, Dialysis Facility, Emergency Medical Services/Ambulance, Home Health, Hospice, Hospital/Acute Care Facility, Imaging Facility, Laboratory, Pharmacy, 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), Ambulatory Care : Clinician Office/Clinic, Ambulatory Care : Urgent Care, Home Health, Hospice, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Rehabilitation	Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Rehabilitation	Ambulatory Care : Ambulatory Surgery Center (ASC)	Home Health	Ambulatory Care : Ambulatory Surgery Center (ASC), Ambulatory Care : Clinician Office/Clinic, Ambulatory Care : Urgent Care, Home Health, Hospice, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility	Ar Ar Ce Ca Of Ca He Ac Fa Ho Fa
Numerator Statement	This measure has two rates. The numerator for the discussing falls rate is the number of older adults who talked with	Patients who were screened for future fall* risk** at last once within 12 months *A fall is defined as a	Total number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) by hospital unit	Total number of patient falls of injury level minor or greater (whether or not assisted by a staff	ASC admissions experiencing a fall in the ASC.	Number of home health episodes of care in which patients 65 and older had a multi-factor fall risk assessment at	Patients at risk* of future fall** who had a multi-factorial risk assessment*** for falls completed within 12 months.	Pa fal fal m *R

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	their doctor about falling or problems with balance or walking. The numerator for the managing falls risk rate is the number of older adults who report having their provider suggest an intervention to prevent falls or treat problems with balance or walking.	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 defineds as having had 2 or more falls in the past year or any fall with injury in the past year.	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.	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.		start/resumption of care.	*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. **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 assessment is 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.	de ha pa inj ** su ch ca la ar gr co or ep ov fo *** as ap de st
Numerator Details	Time Window: 12 month measurement year This measure is collected through patient self-report on a mailed (phone follow-up) survey. The questions used to identify the	Time Window: A twelve month measurement period Patients are considered to be numerator compliant if any of the following codes are present in the patient record.	Time Window: Calculations are performed to produce monthly fall rate per 1000 patient days; then quarterly fall rate is calculated as a mean of the 3 months. Fall Definition: A patient fall is an	Time Window: Calculations are performed to produce monthly injury fall rate per 1000 patient days; then quarterly injury fall rate is calculated as mean of the 3 months. Definition:	Time Window: In-facility, prior to discharge DEFINITIONS: Admission: Completion of registration upon entry into the facility. Fall: A sudden, uncontrolled, unintentional downward displacement	Time Window: CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. Number of home health patient episodes of care where at start of episode: - (M1910) Has patient had	Time Window: A twelve month measurement period All patients who have a risk assessment for falls completed in the 12 month measurement period comprised of balance/gait AND one or more of the following: postural blood	Ti m pe Al of co m pe co

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	numerator for the two rates are: a) Discussing Falls Q1: "A fall is when your body goes to the ground without being pushed. In the past 12 months, did you talk with your doctor or other health provider about falling or problems with balance or walking?" Answer choices: Yes, No, I had not visits in the past 12 month. (an answer of "Yes" is required for the numerator) b) Managing Fall Risk Q4: "Has your doctor or other health provider done anything to help prevent falls or treat problems with balance or walking? Some things they might do include: Suggest that you use a cane or walker, check your blood pressure lying or standing, suggest that you do an exercise or physical therapy program, and suggest a vision or hearing testing." Answer choices: Yes, No, I had not visits in the past 12 month. (an answer of	CPT Category II code: 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 OR CPT Category II code: 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	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 vsitors • 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	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,	of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions (National Center for Patient Safety).	a Multi-factor Fall Risk Assessment = 1 (yes - found no risk) or 2 (yes - found risk)	pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls 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)	ap de str Co ap de th wa co ev ap de Ba ga Do ba ga we to wh or co str Al ne du vis do me be pa Th co co me CH of

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	"Yes" is required for the numerator)		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 • Month • Year	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			referral for evaluation of home fall hazards. Medications: Documentation of whether the patient's current medications may or may not contribute to falls. 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. CPT II 3288F: Falls risk assessment documented	

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			• Event Type (fall, assisted fall, repeat fall) • Type of Unit Data elements: optional .Age • Gender • Fall Risk Assessment prior to fall • Fall Risk score . Was patient at fall risk (yes/no) . Time since last risk assessment • Fall Prevention Protocol . Whether physical restraints in use at time of fall . Prior fall same month	is not an assisted 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., when you are 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			

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				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 Data elements: optional . Age • Gender • Fall Risk Assessment prior to fall • Fall Risk score . Was patient at fall risk (yes/no) . Time since last risk assessment • Fall Prevention Protocol . Whether physical restraints in use at time of fall . Prior fall same month				

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Denominator Statement	Each rate has a different denominator. The Discussing Falls measure has two denominators: adults age 75 and older who had a provider visit in the past 12 months and 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.	All patients aged 65 years and older seen by an eligible provider in the past year.	Denominator Statement: Patient days by hospital 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. •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 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. •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.	All ASC admissions.	Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.	All patients aged 65 years and older 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)	Al ar fal de in wi ye pr m
Denominator Details	Time Window: 12 month measurement year The denominator is collected through patient self-report on a mailed (phone follow-up) survey. The questions used to identify the denominator are: A1) Discussing Falls	Time Window: A twelve month measurement period 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	Time Window: Calculations are performed to produce monthly patient days; then quarterly fall rate is calculated as a mean of the 3 months. Conceptually, a patient day is 24 hours, beginning the hour of admission. The operational definitions of patient day are explained in	Time Window: Calculations are performed to produce monthly patient days; then quarterly patient days are calculated as mean of the 3 months. Conceptually, a patient day is 24 hours, beginning the hour of admission. The	Time Window: In-facility, prior to discharge DEFINITIONS: Admission: Completion of registration upon entry into the facility.	Time Window: CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. Number of home health patient episodes of care, defined as: A start/resumption of care assessment ((M0100) Reason for Assessment =	Time Window: A twelve-month measurement period 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. CPT Code:	Ti m pe Pa th ha he du pe fo id

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	members aged 65-75 Q1: "A fall is when your body goes to the ground without being pushed. In the past 12 months, did your doctor or other health provider talk with you about falling or problems with balance or walking?" Answer choices: yes, no, I had not visits in the past 12 months (Answer choice of yes or no is required for denominator inclusion). AND Q2: "Did you fall in the past 12 months? ?" Answer choices: Yes, No (answer choice of yes for denominator inclusion) OR Q3: "= "Yes" or Q50 In the past 12 months, have you had a problem with balance or walking?" Answer choice: Yes, No (answer choice of yes for denominator inclusion) A2) Discussing Falls members aged 75+: Q1: "A fall is when your body goes to the ground without being pushed. In the past 12 months, did	meet inclusion criteria. CPT codes 97001, 97002, 97003, 97004, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 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, 99387, 99397, 99401, 99402, 99403, 99404	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	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		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.	97001, 97002, 97003, 97004, 99201, 99202, 99203, 99204, 99205, 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 AND Report the following CPT Category II code to confirm a history of falls: 1100F: Patient screened for future fall risk; documentation of two or more falls in the past year.	in CI 97 99 99 99 99 99 99 99 99 99 AN Re Ca co 11 fo do m ye

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	your doctor or other health provider talk with you about falling or problems with balance or walking?" Answer choices: yes, no, I had not visits in the past 12 months (Answer choice of yes or no is required for denominator inclusion). B) Managing Fall Risk: Q1: "A fall is when your body goes to the ground without being pushed. In the past 12 months, did your doctor or other health provider talk with you about falling or problems with balance or walking?" (Answer choice of yes or no is required for denominator inclusion) AND Q2: "Did you fall in the past 12 months?" Answer choices: Yes, No (answer choice of yes for denominator inclusion) OR Q3: "In the past 12 months, have you had a problem with balance or walking?" Answer choice: Yes, No (answer choice of yes for denominator inclusion)		the method that most accurately accounts for the patient work load. There are five (5) 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-Midnight Census + Patient Days from Average Hours for Short Stay Patients	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 five (5) 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"				

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	AND Q4: Has your doctor or other health provider done anything to help prevent falls or treat problems with balance or walking? Some things they might do include: Suggest that you use a cane or walker; Check your blood pressure lying or standing; suggest that you do an exercise or physical therapy program; suggest a vision or hearing testing. Answer choices: yes, no, I had not visits in the past 12 months (Answer choice of yes or no is required for denominator inclusion).		This method is the least accurate method for collecting short stay patient hours on units that have both in-patients and short stay patients. The short stay average is to be obtained from a special study documenting the time spent by short stay patients on specific unit types. This pilot study should cover a month of data and should be repeated every year. Average short stay days are reported separately and added by NDNQI with midnight census to obtain patient days. The average daily hours should be multiplied by the number of days in the month and the product divided by 24 to produce average short stay days. •Method 4-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.	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-Midnight Census + Patient Days from Average Hours for Short Stay Patients This method is the least accurate method for collecting short stay patient hours on units that have both in-patients and short stay patients. The short stay average is to be obtained from a special study documenting the time spent by short stay patients on specific unit types. This pilot study should cover a month of data and should be repeated every year. Average short stay days are reported separately and added by NDNQI with midnight census to obtain patient days. The average daily				

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
			•Method 5-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 4. 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	hours should be multiplied by the number of days in the month and the product divided by 24 to produce average short stay days. •Method 4-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 5-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 4. Patient days based on midnight and noon census have shown to be sufficient in adjusting for short stay patients. A sum of the				

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
				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	N/A	Patients who have documentation of medical reason(s) for not screening for future fall risk (e.g., patient is not ambulatory) are considered exceptions to this measure.	Excluded Populations: Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)	Excluded Populations: Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)	ASC admissions experiencing a fall outside the ASC.	Episodes in which the patient's age was less than 65 at the time of assessment.	Patients who have documentation of medical reason(s) for not completing a risk assessment for falls (e.g., patient is not ambulatory) are considered exclusions to this measure.	Pa do re co as pa no to
Exclusion Details	N/A	Patients are considered to be excluded from measurement if any of the following codes are present in the patient record CPT II Category II code: 1100F–1P OR 1101F–1P: Documentation of medical reason(s) for not screening for future fall	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	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,	Falls occurring outside the confines of the ASC are excluded.	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 -(M0030) Start of care date minus (M0066) Patient Birth date is less than 65	Patients are considered to be excepted from measurement if any of the following codes are present in the patient record: Risk Assessment for Falls not Completed for Medical Reasons 3288F with 1P: Documentation of medical reason(s) for not	Pa be m fo pr re 05 Do re ca

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
		risk	denominator. Note: rates are per unit; a hospital rate is not calculated.	then unit type is excluded from denominator. Note: rates are per unit; a hospital total is not calculated.		years PLUS Number of home health patient episodes of care where at start of episode: -(M0100) Reason for Assessment = 3 (Resumption of care) AND -(M0032) Resumption of care date minus (M0066) Patient Birth date is less than 65 years 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.	completing a risk assessment for falls AND CPT II 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	

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
						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 N/A	No risk adjustment or risk stratification N/A	Other Stratification is by unit type (e.g., critical care, step down, medical), which is not identical to risk, but may be related. N/A	Other Stratification is by unit type (e.g., critical care, step down, medical), which is not identical to risk, but may be related. N/A	No risk adjustment or risk stratification None	No risk adjustment or risk stratification N/A - process measure.	No risk adjustment or risk stratification N/A	No str N/
Stratification	N/A	N/A	Stratification by unit type: Adult In-patient Patient Population Limited to units generally caring for patients over 16 years old. • 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	Stratification by unit type: Adult In-patient Patient Population Limited to units generally caring for patients over 16 years old. • 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	This measure is not stratified	N/A - measure not stratified.	N/A	N/

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
			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.	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				

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
			• 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. Rehabilitation In-patient Patient Population 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. • Adult Limited to units generally caring for rehab patients	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. Rehabilitation In-patient Patient Population Medicare payment policies differentiate rehabilitation from acute care, requiring patients to be				

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
			over 16 years old. Optional specialty designations include: Brain Injury/SCI, Cardiopulmonary, Neuro/Stroke and Orthopedic/Amputee Rehab units.	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. • 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.				
Type Score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score	Ra qu
Algorithm	Discussing Falls Step 1: Determine the eligible population: The eligible population is all adults aged 65 and older. Step 2: Determine the number of patients meeting the denominator criteria. The denominator includes all patients aged 65-74 with a self-reported provider	Measure Calculation For performance purposes, this measure is calculated by creating a fraction with the following components: Denominator, Numerator, and Exceptions. Step 1: Determine the eligible population. The eligible population is all the patients aged 65	Eligible units identified and selected; input patient days (including method) for each respective unit; input number of falls for respective unit by month; then perform calculations to produce monthly fall rate per 1000 patient days; then calculate quarterly fall rate as mean of the 3 months. Attachment Fall_and_Unassisted fall	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 perform calculations to produce monthly injury fall rate per 1000 patient days; then calculate quarterly injury fall rate aa the	The number of admissions experiencing a fall in the ASC is divided by the number of ASC admissions during the reporting period, yielding the rate of patient falls in the ASC for the reporting period.	Technical Specifications available at: https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf	Measure Calculation For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Exceptions. Step 1: Determine the eligible population. The eligible population is all the patients aged 65 years and older. Step 2: Determine number	M Fo pu ca fra co De ar St eli eli th ye

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	visit in the past year (Q1) who report having had a fall (Q2) or problem with balance or walking in the past year (Q3) OR all patients aged 75 and older with a self-reported provider visit in the past year (Q1). Step 3: Determine the number of patients meeting the numerator criteria. The numerator includes all patients in the denominator population who reported discussing falls or a problem with walking or balance with a provider in the past year (Q1). Step 4: Calculate the rate by dividing the total from step 3 by the total from step 3. Managing Falls Risk Step 1: Determine the eligible population: The eligible population is all adults aged 65 and older. Step 2: Determine the number of patients meeting the denominator criteria. The denominator includes all patients aged 65 and older with a self-reported	years and up. Step 2: Determine number of patients meeting the denominator criteria as specified in Section 2a1.7 above. The denominator includes all patients 65 and up seen by a health care provider in the measurement year. Step 3: Determine the number of patients who meet the numerator criteria as specified in section 2a1.3 above. The numerator includes all patients in the denominator population who were screened for future fall risk as least once within a twelve month period. Step 4: Identify patients with valid exclusions. 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 5: Calculate the rate by dividing the total from Step 3 by the total from Step 2 minus the total from Step 4. (e.g.	rate flow charts.pdf	mean of the 3 months. Attachment Injury Fall Rate Flowchart.pdf			of patients meeting the denominator criteria as specified in Section 2a1.7 above. The denominator includes all patients 65 and up seen by a health care provider in the measurement year with documentation of two or more falls in the previous year. Step 3: Determine the number of patients who meet the numerator criteria as specified in section 2a1.3 above. The numerator includes all patients who received a risk assessment. Step 4: Identify patients with valid exclusions. Patients with documented medical reason(s) for not conducting risk assessement (e.g., patient is not ambulatory) are excluded from to the denominator. Step 5: Calculate the rate by dividing the total from Step 3 by the total from Step 2 minus the total from Step 4. (e.g. Step 3/(Step 2 – Step 4))	St nu m cri Se de pa by in wi or pr St nu m cri se nu pa de wi ca m St wi Pa m ha fal ar fro St by St St fro 3/

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	provider visit in the past year (Q1 and Q4) who report having had a fall (Q2) or problem with balance or walking in the past year (Q3). Step 3: Determine the number of patients meeting the numerator criteria. The numerator includes all patients in the denominator population who indicated their provider provided suggestions for falls risk management (Q4). Step 4: Calculate the rate by dividing the total from step 3 by the total from step 3.	Step 3/(Step 2 – Step 4)) Attachment Algorithm.pdf						
Submission items	5.1 Identified measures: 0101 : Falls: Screening for Future Fall Risk 0141 : Patient Fall Rate 0202 : Falls with injury 0537 : Multifactor Fall Risk Assessment Conducted in Patients 65 and Older 1730 : Falls: Risk Assessment for Falls 1733 : Falls: Plan of Care for Falls 5a.1 Are specs completely	5.1 Identified measures: 0035 : Fall Risk Management 0141 : Patient Fall Rate 0202 : Falls with injury 0537 : Multifactor Fall Risk Assessment Conducted in Patients 65 and Older 1730 : Falls: Risk Assessment for Falls 1733 : Falls: Plan of Care for Falls 5a.1 Are specs completely harmonized? No	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	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	5.1 Identified measures: 0141 : Patient Fall Rate 0202 : Falls with injury 0674 : Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: 0141: Patient Fall Rate - This measure is	5.1 Identified measures: 0101 : Falls: Screening for Future Fall Risk 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: Measure 0101 defines falls risk as the patient having experienced 2 or more falls in the past year or any fall with injury in the past year, whereas	5.1 Identified measures: 0035 : Fall Risk Management 0101 : Falls: Screening for Future Fall Risk 0141 : Patient Fall Rate 0202 : Falls with injury 0537 : Multifactor Fall Risk Assessment Conducted in Patients 65 and Older 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify	5. 00 Ma 01 Fu 01 02 05 Ri Co ar 17 As 5a co ha

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: NQF# 0141 measures patient fall rate in the hospital setting during one month. This measure is related but not competing. The target population overlap but are different in focus (#0035 – all adults; #0141 – adults in the hospital setting) and the measure concept is different (#0035 discussing and managing fall risk with provider; #0141 rate of falls outcome measure).;NQF #0202 measures patient fall with injury rate in the hospital setting. This measure is related by not competing. The target population overlap but are different in focus (#0035- all adults; #0202 – adults in the hospital setting) and the measure concept is different (#0035 – discussing and managing fall risk with	5a.2 If not completely harmonized, identify difference, rationale, impact: SEE 5B1 FOR MORE INFORMATION. 5b.1 If competing, why superior or rationale for additive value: RELATED MEASURES: 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 (#0101-adults in non-acute settings; #0141 – adults in the hospital setting) and the measure concept is different (#0101 – screening for falls risk process measure; #0141 rate of falls outcome measure). NQF #0202 measures patient fall with injury rate in the hospital setting. This measure is related by not competing. The target population is different (#0101-adults in non-acute settings; #0202 –	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.	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.	designed for use in the hospital setting. The numerator statement quantitates the number of falls "by hospital unit". The denominator statement specifies "Patient days by hospital unit during the calendar month". The included populations include patients other than same day surgery patients. ASCs do not have units, do not use patient days for reporting and serve only the same day surgery patient population. The measure is not well-suited to application in the ASC setting as currently specified. 0202: Falls with Injury - This measure is designed for use in the hospital setting. The numerator statement quantitates the number of falls "by hospital unit" with an injury level minor or greater. The denominator statement specifies "Patient days by type of unit during the calendar month". The included populations encompass patients other than same	the HH measure requires a multi-factor falls risk that has been validated and standardized. 5b.1 If competing, why superior or rationale for additive value: N/A - there are no measures that are both the same measure focus and the same target population.	difference, rationale, impact: SEE 5B1 FOR MORE INFORMATION 5b.1 If competing, why superior or rationale for additive value: RELATED MEASURES: 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 (#1730- adult in ambulatory care or home health or nursing home; #0141 – adults in the hospital setting) and the measure concept is different (#1730 – Multi-factorial falls risk assessment; #0141 rate of falls outcome measure). NQF #0202 measures patient fall with injury rate in the hospital setting. This measure is related by not competing. The target population is different (#1730- adult in ambulatory care or home health or nursing home; #0202 – adults in the hospital setting) and the measure concept is different (#1730 – Multi-factorial falls risk	5a ha di im M 5b su ad RE NC pa ho m re Th di ar he #C ho m di ca do of m NC pa in Th by ta di ar he

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	provider; #0202 – rate of falls with injury outcome measure). 5b.1 If competing, why superior or rationale for additive value: NQF #0537 measures risk assessment for falls in the home health setting. This measure could be considered competing. The target population overlap but are different in focus (#0035-all adults; #0537 – adults in the home health setting) and the measure concept is similar (#0035 – discuss and manage fall risk with provider (no structured risk assessment defined); #0537 – multi-factorial risk assessment for falls). NQF #0101, #1730, #1733 may also be considered competing. The target population is the same, however the measure concept is different (#0101 – Screening of for falls risk; #1730 – Multifactorial falls risk assessment; #1733 –	adults in the hospital setting) and the measure concept is different (#0101 – screening for falls risk process measure; #0202 – rate of falls with injury outcome measure). NQF #0537 measures risk assessment for falls in the home health setting. This measure is related by not competing. The target population overlap but are different in focus (#0101-adults in all non-acute settings including home-care; #0537 – adults in the home health setting) and the measure concept is different (#0101 – screening for falls risk to determine if multi-factorial risk assessment is appropriate; #0537 – multi-factorial risk assessment for falls) NQF #1730 and #1733 are paired measures which are related by not competing. The target population is the same, however the measure concept is different (#0101 – screening for			day surgery patients. ASCs do not have units, do not use patient days for reporting and serve only the same day surgery patient population. The measure is not well-suited to application in the ASC setting as currently specified. It is also limited to falls with injury level minor or greater. The ASC QC measure includes all falls regardless of injury level, as any fall may be an indicator that patient safety processes are in need of review and/or revision. 0674: Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) - This measure is designed for nursing home use. The specifications are not pertinent to the ambulatory surgery center setting or the patients served there, as none are residents of the ASC. 5b.1 If competing, why superior or rationale for additive value: No competing measures		assessment; #0202 – rate of falls with injury outcome measure). NQF #0101 and #1733 are related by not competing. The target population is the same, however the measure concept is different (#0101 – screening for falls risk to determine if multi-factorial risk assessment is appropriate; #1730 – multi-factorial falls risk assessment; #1733 – plan of care for falls prevention). NQF #0035 measures falls risk management for all individuals across settings. This measure is related but not competing. The target population is the same; however the measure concept is different (#1730 – multi-factorial risk assessment; #0035 patient report of discussing balance, walking or falls problem and receiving an intervention). NQF #0035 is a health plan level measure and uses a different data source (patient reported) from #1730 (administrative claims). COMPETING MEASURES:	#0 ho m dif ca do of ou NO as ho m co po dif ad se ca th ar is of do m as NO ar co po ho co (# fal m as ap m

	0035 Fall Risk Management	0101 Falls: Screening for Future Fall Risk	0141 Patient Fall Rate	0202 Falls with injury	0266 Patient Fall	0537 Multifactor Fall Risk Assessment Conducted in Patients 65 and Older	1730 Falls: Risk Assessment for Falls	17 fo
	Plan of care for falls prevention documented; #0035 patient report of discussing balance, walking or falls problem and receiving an intervention). NQF #0035 is a health plan level measure and uses a different data source (patient reported) from #1733 (administrative claims).	falls risk to determine if multi-factorial risk assessment is appropriate; #1730 – multi-factorial falls risk assessment; #1733 – plan of care for falls prevention). NQF #0035 measures falls risk management for all individuals across settings. This measure is related but not competing. The target population is the same; however the measure concept is different (#0101 – screening for falls risk; #0035 patient report of discussing balance, walking or falls problem and receiving an intervention). NQF #0035 is a health plan level measure and uses a different data source (patient reported) from #0101 (administrative claims). COMPETING MEASURES: No competing measures			found		NQF #0537 measures risk assessment for falls in the home health setting. This measure is competing. The target populations overlap but are slightly different (#1730-adult in ambulatory care or home health or nursing home; #0537 – adults in the home health setting), and the measure concept is the same.) NCQA is willing to work with CMS to harmonize the measures, however given the different uses of these measure (#1730 PQRS; #0537 Medicare Home Health Quality) and different data sources (#1730 administrative claims; #0537 OASIS data set) it will not be possible to combine the measures.	as of pr NC fa all se re Th th m di ca do pa di wa ar int is m di (p #1 cl CC M No

Comparison of pressure ulcer measures: NQF #0337, #0538, #0539 and NQF #540

**After the Steering Committee discussion of related and competing measures, the developer agreed to combine measures #0538, #0539 and #0540.*

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
Steward	Agency for Healthcare Research and Quality	Centers for Medicare and Medicaid Services	Centers for Medicare and Medicaid Services	Centers for Medicare and Medicaid Services
Description	Percent of discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of pressure ulcer in any secondary diagnosis field and ICD-9-CM code of pressure ulcer stage III or IV (or unstagable) in any secondary diagnosis field	Percentage of home health episodes of care in which the physician-ordered plan of care includes interventions to prevent pressure ulcers.	Percentage of short term home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented.	Percentage of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers at start/resumption of care.
Type	Outcome	Process	Process	Process
Data Source	Administrative claims Healthcare Cost and Utilization Project State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). Agency for Healthcare Research and Quality, Rockville, MD. URL http://www.hcup-us.ahrq.gov/sidoverview.jsp Not applicable URL http://qualityindicators.ahrq.gov/Downloads/Software/WinQI/V43/AHRQ%20QI%20Software%20Instructions,%20WinQI.pdf Not applicable	Electronic Clinical Data : Electronic Health Record OASIS-C instrument URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQIOASISCAllTimePoint.pdf URL https://www.cms.gov/OASIS/Downloads/oasisp200.zip	Electronic Clinical Data OASIS-C instrument URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQIOASISCAllTimePoint.pdf URL https://www.cms.gov/OASIS/Downloads/oasisp200.zip	Electronic Clinical Data OASIS-C instrument URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQIOASISCAllTimePoint.pdf URL https://www.cms.gov/OASIS/Downloads/oasisp200.zip
Level	Facility	Facility	Facility	Facility
Setting	Hospital/Acute Care Facility	Home Health	Home Health	Home Health
Numerator Statement	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code of pressure ulcer in any secondary	Number of home health episodes of care in which the physician-ordered plan of care includes interventions to prevent pressure ulcers.	Number of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and	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

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
	diagnosis field and ICD-9-CM code of pressure ulcer stage III or IV (or unstagable) in any secondary diagnosis field.		implemented.	using a standardized tool, at start/resumption of care.
Numerator Details	Time Window: User may specify the time window; generally one calendar year ICD-9-CM Pressure ulcer diagnosis codes: 7070* PRESSURE ULCER 70700 PRESSURE ULCER SITE NOS (OCT04) 70701 PRESSURE ULCER, ELBOW (OCT04) 70702 PRESSURE ULCER, UP BACK (OCT04) 70703 PRESSURE ULCER, LOW BACK (OCT04) 70704 PRESSURE ULCER, HIP (OCT04) 70705 PRESSURE ULCER, BUTTOCK (OCT04) 70706 PRESSURE ULCER, ANKLE (OCT04) 70707 PRESSURE ULCER, HEEL (OCT04) 70709 PRESSURE ULCER, SITE NEC (OCT04) *No longer valid in FY2005 ICD-9-CM Pressure ulcer stage	Time Window: CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. Number of home health patient episodes of care where at start of episode: -(M2250f) Pressure Ulcer Prevention in Care Plan = 1 (yes)	Time Window: CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. Number of home health patient episodes of care where at end of episode: - (M2400e) Pressure Ulcer Prevention Plan implemented = 1 (yes)	Time Window: CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. 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)

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
	diagnosis codes*: 70723 PRESSURE ULCER, STAGE III 70724 PRESSURE ULCER, STAGE IV 70725 PRESSURE ULCER, UNSTAGEBL * Valid for discharges on or after 10/1/2008			
Denominator Statement	All surgical and medical discharges under age 18 defined by specific DRGs or MS-DRGs	Number of home health episodes of care ending during the reporting period, other than those covered by generic exclusions.	Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.	Number of home health episodes of care ending during the reporting period, other than those covered by generic exclusions.
Denominator Details	Time Window: User may specify the time window; generally one calendar year See Pediatric Quality Indicators Appendices: - Appendix A – Operating Room Procedure Codes - Appendix B – Surgical Discharge DRGs - Appendix C – Surgical Discharge MS-DRGs - Appendix D – Medical Discharge DRGs - Appendix E – Medical Discharge MS-DRGs Link to PDI appendices: http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/TechnicalSpecifications/PDI%20Appendices.pdf	Time Window: CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. 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.	Time Window: CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. 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.	Time Window: CMS systems report data on episodes that end within a rolling 12 month period, updated quarterly. 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	Exclude cases: - neonates - with length of stay of less than 5 days	Episodes in which the patient is not assessed to be at risk for pressure ulcers.	Number of home health episodes in which the patient was not assessed to be at risk for pressure ulcers, or the	Measure Specific Exclusions: None

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
	- with preexisting condition of pressure ulcer (see Numerator) (principal diagnosis or secondary diagnosis present on admission) - in MDC 9 (Skin, Subcutaneous Tissue, and Breast) - with an ICD-9-CM procedure code for debridement or pedicle graft before or on the same day as the major operating room procedure (surgical cases only) - with an ICD-9-CM procedure code of debridement or pedicle graft as the only major operating room procedure (surgical cases only) - 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 14 (pregnancy, childbirth, and puerperium) - with missing discharge 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 Link to PDI appendices: http://qualityindicators.ahrq.gov/Downlo		home health episode ended in transfer to an inpatient facility or death.	

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	ads/Software/SAS/V43/TechnicalSpecifications/PDI%20Appendices.pdf			
Exclusion Details	ICD-9-CM Debridement or pedicle graft procedure codes: 8345 OTHER MYECTOMY 8622 EXC WOUND DEBRIDEMENT 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	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 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.	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 PLUS Number of home health patient episodes of care where at least one assessment with (M0100) Reason for Assessment = 4 (Recertification follow-up reassessment) or 5 (Other follow-up) was completed between the start and end of the episode of care (Long-Term Care Exclusion). 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	Measure Specific Exclusions: None 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.

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
			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	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, birthweight (500g groups), age in days (29-60, 61-90, 91+), age in years (in 5-year age groups), modified CMS DRG and AHRQ CCS comorbities. The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Data (SID) for the years 2008, a database consisting of 43 states and approximately 6 million pediatric discharges. 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. Covariates used in this measures: Age in Years 13 to 18	No risk adjustment or risk stratification N/A - process measure	No risk adjustment or risk stratification N/A - process measure	No risk adjustment or risk stratification N/A

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
	Age in Years 6 to 13 MDC 1 High Risk (hemiplegia, paraplegia, or quadriplegia, spina bifida, anoxic brain, other continuous mechanical ventilation code for 96 or more consecutive hours) URL http://qualityindicators.ahrq.gov/Downloads/Software/SAS/V43/Risk%20Adjustment%20Tables%20PDI%204.3.pdf Not applicable			
Stratification	PDI 2 stratifies rates by high-risk vs. lower risk groups. High risk group: ICD-9-CM Hemiplegia, paraplegia, or quadriplegia diagnosis codes: 33371 ATHETOID CEREBRAL PALSY 3420 FLACCID HEMIPLEGIA 34200 FLCCD HMIPLGA UNSPF SIDE 34201 FLCCD HMIPLGA DOMNT SIDE 34202 FLCCD HMIPLG NONDMNT SDE 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	N/A - not stratified	N/A - not stratified.	N/A

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	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			

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
	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 3443 MONOPLEGIA OF LOWER LIMB 34430 MONPLGA LWR LMB UNSP SDE 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 3446 CAUDA EQUINA SYNDROME 34460			

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
	CAUDA EQUINA SYNDROME, WITHOUT MENTION OF NEUROGENIC BLADDER 34461 CAUDA EQUINA SYNDROME, WITH NEUROGENIC BLADDER 3448 OTHER SPECIFIED PARALYTIC SYNDROMES 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			

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
	43852 LT EF OTH PARALS NON-DOM 43853 LT EF OTH PARALS-BILAT 7687 HYPOXIC-ISCHEMIC ENCEPH 76870 HYPOXIC-ISCHEMIC ENCEPHALOPATHY, UNSPECIFIED (OCT09) 76872 MODERATE HYPOXIC-ISCHEMIC ENCEPHALOPATHY (OCT09) 76873 SEVERE HYPOXIC-ISCHEMIC ENCEPHALOPATHY (OCT09) ICD-9-CM Spina bifida diagnosis codes: 74100 SPINA BIFIDA, W HYDROCEPHALUS UNSPECIFIED REGION 74101 SPINA BIFIDA, W HYDROCEPHALUS CERVICAL REGION 74102 SPINA BIFIDA, W HYDROCEPHALUS DORSAL REGION 74103 SPINA BIFIDA, W HYDROCEPHALUS LUMBAR REGION 74190 SPINA BIFIDA, W/O HYDROCEPHALUS UNSPECIFIED REGION 74191 SPINA BIFIDA, W/O HYDROCEPHALUS CERVICAL REGION			

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
	74192 SPINA BIFIDA, W/O HYDROCEPHALUS DORSAL REGION 74193 SPINA BIFIDA, W/O HYDROCEPHALUS LUMBAR REGION 7687 HYPOXIC-ISCHEMIC ENCEPH 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 ADD CONTINUOUS MECHANICAL VENTILATION >=96 HRS Low risk group: All patients not qualifying as high risk.			
Type Score	Rate/proportion better quality = lower score			Rate/proportion better quality = higher score
Algorithm	Each indicator is expressed as a rate, is defined as outcome of interest / population at risk or numerator / denominator. The AHRQ Quality Indicators (AHRQ QI) software performs six steps to produce the rates. 1) Discharge-level data is used to mark inpatient records containing the outcome of interest and 2) the population at risk. For provider indicators, the population at risk is also derived from hospital discharge records; for area indicators, the population at risk	N/A - process measure URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf	Calculation algorithm available in the Technical Specifications URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf	Calculation algorithm available in the Technical Specifications at: URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf

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	is derived from U.S. Census data. 3) Calculate observed rates. Using output from steps 1 and 2, rates are calculated for user-specified combinations of stratifiers. 4) Calculate expected rates. Regression coefficients from a reference population database are applied to the discharge records and aggregated to the provider or area level. For indicators that are not risk-adjusted, this is the reference population rate. 5) Calculate risk-adjusted rate. Use the indirect standardization to account for case-mix. For indicators that are not risk-adjusted, this is the same as the observed rate. 6) Calculate smoothed rate. A Univariate shrinkage factor is applied to the risk-adjusted rates. The shrinkage estimate reflects a reliability adjustment unique to each indicator URL Not applicable http://qualityindicators.ahrq.gov/Downloads/Resources/Publications/2011/QI%20Empirical%20Methods%2005-03-11.pdf			
Submission items	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	5.1 Identified measures: 0540 : Pressure Ulcer Risk Assessment Conducted 0539 : Pressure Ulcer Prevention Implemented during Short Term Episodes of Care 5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact:	5.1 Identified measures: 0540 : Pressure Ulcer Risk Assessment Conducted 0538 : Pressure Ulcer Prevention Included in Plan of Care 5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact:	5.1 Identified measures: 0538 : Pressure Ulcer Prevention Included in Plan of Care 0539 : Pressure Ulcer Prevention Implemented during Short Term Episodes of Care 5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact:

	0337 Pressure Ulcer Rate (PDI 2)	0538 Pressure Ulcer Prevention Included in Plan of Care	0539 Pressure Ulcer Prevention Implemented during Short Term Episodes of Care	0540 Pressure Ulcer Risk Assessment Conducted
		5b.1 If competing, why superior or rationale for additive value: The 3 related home health measures of care for pressure ulcers complement each other to provide information on the assessment, care planning and implementation of interventions for prevention of pressure ulcers.	5b.1 If competing, why superior or rationale for additive value: There are no measures with the same measure focus (pressure ulcer prevention implemented) and the same target population (home health). The 3 related home health measures of care for pressure ulcers complement each other to provide information on the assessment, care planning and implementation of interventions for prevention of pressure ulcers.	5b.1 If competing, why superior or rationale for additive value: There are no measures with the same measure focus (pressure ulcer assessment) and the same target population (home health). The 3 related home health measures of care for pressure ulcers complement each other to provide information on the assessment, care planning and implementation of interventions for prevention of pressure ulcers.