TO: Consensus Standards Approval Committee (CSAC)

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RE: Patient Safety Member Voting Results

DA: November 9, 2015

CSAC ACTION REQUIRED

Pursuant to the Consensus Development Process, the CSAC may consider approval of 22 candidate consensus standards plus three measures undergoing an Ad Hoc review.

The CSAC will review recommendations from the Patient Safety 2015 project at its November 18 in-person meeting. This memo includes a summary of the project, recommended measures, and themes identified from and responses to the public and member comments.
Member voting on these recommended measures ended on November 4.

Accompanying this memo are the following documents:

1. **Patient Safety 2015 Draft Report:** The draft report has been updated to reflect the changes made following Standing Committee discussion of public and member comments. The complete draft report and supplemental materials are available on the project page.
2. **Comment table:** Staff has identified themes within the comments received. This table lists 282 comments received and the NQF/Standing Committee responses.

Patient Safety Measures Recommended for Endorsement:

- 0101: Falls: Screening, Risk Assessment, and Plan of Care to Prevent Future Falls (National Committee for Quality Assurance)
- 0141: Patient Fall Rate (American Nurses Association)
- 0202: Falls With Injury (American Nurses Association)
- 0204: Skill Mix Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN, Unlicensed Assistive Personnel [UAP], and Contract (American Nurses Association)
- 0205: Nursing Hours per Patient Day (American Nurses Association)
- 0337: Pressure Ulcer Rate (PDI 2) (Agency for Healthcare Research and Quality)
- 0347: Death Rate in Low-Mortality Diagnosis Related Groups (PSI02) (Agency for Healthcare Research and Quality)
- 0419: Documentation of Current Medications in the Medical Record (Quality Insights of Pennsylvania)
- 0537: Multifactor Fall Risk Assessment Conducted for All Patients Who Can Ambulate (Centers for Medicare & Medicaid Services)
- 0538: Pressure Ulcer Prevention and Care (Centers for Medicare & Medicaid Services)
- 0674: Percent of Residents Experience One or More Falls with Major Injury (Long Stay) (Centers for Medicare & Medicaid Services)

- 0679: Percent of High Risk Residents with Pressure Ulcers (Long Stay) (Centers for Medicare & Medicaid Services)
- 0687: Percent of Residents Who Were Physically Restrained (Long Stay) (Centers for Medicare & Medicaid Services)
- 0689: Percent of Residents Who Lose Too Much Weight (Long Stay) (Centers for Medicare & Medicaid Services)
- 2720: National Healthcare Safety Network (NHSN) Antimicrobial Use Measure (Centers for Disease Control)
- 2723: Wrong Patient Retract and Reorder (WP-RAR) (Montefiore Health System)
- 2726: Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections (American Society of Anesthesiologists)
- 2732: INR Monitoring for Individuals on Warfarin after Hospital Discharge (Centers for Medicare and Medicaid Services/Mathematica)
- 0097: Medication Reconciliation Post-Discharge (National Committee for Quality Assurance)
- 0531: Patient Safety for Selected Indicators (PSI90) (Agency for Healthcare Research and Quality)
- 0352: Failure to Rescue In-Hospital Mortality (risk adjusted) (The Children's Hospital of Philadelphia): Tabled for further discussion
- 0353: Failure to Rescue 30-Day Mortality (risk adjusted) (The Children's Hospital of Philadelphia): Tabled for further discussion

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

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

Patient Safety Measures Not Recommended

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

BACKGROUND

Patient Safety related events due to medical errors result in tens of thousands of premature deaths each year. Currently, NQF's portfolio of safety measures spans a variety of topic areas including, but not limited to, health care associated infections, falls, pressure ulcers, surgical complications, and workforce issues. However, significant gaps remain in the measurement of patient safety and how providers approach minimizing the risk of patient safety events. There is also a recognized need to expand and harmonize patient safety measures across sites and settings of care.

On June 17-18, 2015, the 25-member Patient Safety Standing Committee evaluated four new measures and 19 maintenance measures. A total of 18 of 23 measures were recommended for endorsement, and one measure was not recommended. At the in-person meeting, two measures were deferred and the

Committee did not reach consensus on two measures. Following the comment period and the review of additional materials, the remaining four measures were recommended for endorsement by the Committee.

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

DRAFT REPORT

The Patient Safety Draft Report presents the results of the evaluation of 23 measures considered under the CDP and 3 ad hoc reviews. 22 are recommended for endorsement as voluntary consensus standards suitable for accountability and quality improvement and 1 was not recommended. The measures were evaluated against the 2013 version of the measure evaluation criteria.

	MAINTENANCE	NEW	TOTAL
Measures considered	19	4	23
Withdrawn from consideration	0	0	0
Recommended	19	3	22
Not recommended	0	1	1
Reasons not Recommended	Importance- 0 Scientific Acceptability- 0 Overall- 0 Competing Measure- 0	Importance- 0 Scientific Acceptability- 1 Overall- 0 Competing Measure- 0	

COMMENTS AND THEIR DISPOSITION

NQF received 282 comments from 19 member organizations and individuals pertaining to the general draft report and to the measures under consideration. A table of comments submitted during the comment period, with the responses to each comment and the actions taken by the Standing Committee and measure developers, is posted to the Patient Safety Project webpage under the Public and Member Comment section.

Comment Themes and Committee Responses

Comments about specific measure specifications or rationale were forwarded to the developers, who were invited to respond.

At its review of all comments, the Standing Committee had the benefit of developer responses. Committee members focused their discussion on measures or topic areas with the most significant and recurring issues.

Theme 1 – Level of Analysis

NQF received comments on most of the measures stating that they were not appropriate for health plan level analysis, although the commenters were generally supportive of the measures. However, only one measure, *0097: Medication Reconciliation Post-Discharge*, is specified at the health plan level, so no changes are requested. As this comment did not directly apply to most of the measures, it is not included in the measure-specific comment discussions below.

Theme 2 – Support for Measures

A number of measures, including *0139: National Healthcare Network (NHSN) Central Line Associated Bloodstream Infection (CLABSI) Outcome Measure*, *0204: Skill Mix Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN, Unlicensed Assistive Personnel [UAP], and Contract*, *0205: Nursing Hours per Patient Day*, *0537: Multifactor Fall Risk Assessment Conducted for All Patients Who Can Ambulate*, and *0538: Pressure Ulcer Prevention and Care* received all supportive comments. The comments included many reasons for support of each particular measure, but many particularly noted the importance of a particular measure for improving patient safety and for public reporting. Measure *0531: Patient Safety for Selected Indicators* received extensive support from many commenters; the details are below in the measure-specific comments section.

Theme 3 – Implementation Issues

Commenters raised a number of implementation issues on several measures. The issues raised included the burden of reporting on providers, issues with CPT II coding, potential unintended consequences of a particular measure, and the general readiness of measures for use in public reporting and payment programs. These are noted under the individual measure, as appropriate.

Theme 4 – Request for Changes to Measures

Commenters suggested changes to many measures; ranging from changes to the numerator or denominator; requests for risk adjustment for particular populations; and revising definitions to be clearer.

Theme 5- Small Number of Cases

For two measures (*0337: Pressure Ulcer Rate (PDI 2*) and *0347: Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)*), that cover infrequent events, commenters were concerned that the small number of cases could make the measure challenging to use and suggested that the Committee look

into this; however, they noted it would be important to catch these incidents for follow up with providers.

Theme 6 – Preference for Outcome Measures

For two measures (*0419: Documentation of Current Medications in the Medical Record* and *2723: Wrong Patient Retract and Reorder (WP-RAR)*), commenters noted a preference for outcome measures rather than the currently specified process measures.

> **Committee Response:** In general, the Committee would prefer outcome measures rather than process or structural measures; however, when measuring the process or structure may still be useful for quality improvement or other purposes, there still can be a role for these types of measures, especially where outcomes may be difficult to measure. Measure 419 is a process measure of attestation to the documentation of a medication list. NQF does have a related endorsed measure for adverse drug events: *0709: Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year*. In this case, the Committee thinks that attestation of medication reconciliation is still an important area that deserves endorsement because not conducting medication reconciliation can have important consequences to patients. In addition, transitions of care are a particularly high-risk time, especially after a hospitalization where medications may change. For Measure 2723, the Committee has determined that this is an outcome measure because while the error did not actually reach the patient, a wrong-patient retract and reorder in the electronic health record is still a medical error.

Measure Specific Comments

0531- PATIENT SAFETY AND ADVERSE EVENTS COMPOSITE (PSI 90)

During the comment period, there were a total of 60 comments submitted on measure 0531 (PSI-90). The majority of comments were supportive, specifically those from individual patients, patient advocate groups, and payers. However, several comments noting concerns with PSI-90 were submitted, primarily by physicians and hospital groups. There were comments specifically around the harmonization of the reporting of central-line associated blood stream infections, which are also reported via NHSN data and endorsed under a separate NQF-endorsed measure. The comment suggested better measure alignment because the NHSN data may be more accurate as it is based on case-report rather than claims data. There were also concerns that some of the events that are captured in administrative claims and reported as adverse events may not be preventable due to limitations in claims data. These data do not suggest a cause for the adverse event, only that it was coded in the chart. Other concerns were raised over the validity of the measure, specifically noting that many of the underlying components of PSI-90 may not be valid, and some have high rates of misclassification when the claims data are compared to chart review.

There were also specific concerns about PSI-12: Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (DVT), which is included in the PSI-90 composite. The comment asked the developer to consider excluding trauma patients from "hospital acquired" DVT. The rationale was that trauma patients are at high risk for DVT, even when aggressive preventative measures are taken. In addition, trauma centers are vigilant in the detection of DVT by routinely screening patients. As a result of patients being high-risk and aggressive screening, there are high rates of DVT due to early identification of calf vein thrombosis. This could result in unfairly penalizing trauma centers, as compared to other centers, which do not screen for DVT as aggressively.

Committee Response: The developer provided detailed responses to each of these comments and made several changes to the measure. These some of these updates included: removing PSI07 from the composite and reconfiguring the measure with new weights and excluding patients with any diagnosis of major cranial and spinal trauma from the denominator. The developer also provided additional evidence from clinical trials on preventability and other modifiable risk factors suggesting preventability. The Committee agreed the developer's response sufficiently address the concerns raised and those voiced in the public comments. They commended the developers on the great level of effort taken to improve the measure. The Committee discussed the appropriateness of claims data for use in this kind of measure. One member voiced concerns about whether the measure demonstrates an adequate degree of validity. The Committee re-voted on this measure and recommended the measure for continued endorsement.

NQF MEMBER VOTING RESULTS

Voting results will be provided in an addendum.

REMOVE ENDORSEMENT OF MEASURES

One measure previously endorsed by NQF was not been re-submitted for maintenance of endorsement:

Measure	Description	Reason for removal of endorsement
0586: Warfarin_PT/ INR Test (Resolution Health, Inc.)	This measure identifies the percentage of patients taking warfarin during the measurement year who had at least one PT/INR test within 30 days after the first warfarin prescription in the measurement year	Developer did not resubmit for maintenance.

Appendix A: Details of Measure Evaluation

Measures Recommended

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

0337 Pressure Ulcer Rate (PDI 2)

Submission | **Specifications**

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

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

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

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

Exclusions: Exclude cases:

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

See Pediatric Quality Indicators Appendices:

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

Appendices are included in supplemental files and online at

0337 Pressure Ulcer Rate (PDI 2)

http://www.qualityindicators.ahrq.gov/Modules/PDI_TechSpec.aspx

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

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

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

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

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

Rationale:

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

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

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

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

Rationale:

- The developer reports that data used in testing included information from 36 states that reported present-on-admission data to the 2012 Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID). These data included information on 2,399 hospitals and 241,226 patients.
- Empirical validity testing at the performance measure score level was conducted via a signal-to-noise analysis.
- The developer provided an average reliability estimate for each of 10 hospital groups defined by size (i.e., number of discharges). The average reliability increased as the size of the hospital increased, from 0.957 in the smallest size decile to 0.999 in the largest size decile. The "overall" reliability, calculated as the average reliability across all hospitals, weighted by hospital size, was 0.987.
- The developer assessed the face validity of the measure with a panel of 87 individuals from various professional clinical organizations.
- Developers provided information on the discrimination of the risk-adjustment model (c-

0337 Pressure Ulcer Rate (PDI 2)

statistic=0. 0.817 or 0.7905) as well as its adequacy (by comparing the observed rates to the predicted rates across deciles of risk). Results indicate that the risk-adjustment model can adequately discriminate those with pressure ulcers but the model fit may not be questionable

- There was concern that so many hospitals have zero of these outcomes, however, ultimately the Committee agreed that this measure was able to adequately discriminate quality across hospitals.

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

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

Rationale:

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

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

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

Rationale:

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

5. Related and Competing Measures

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

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received three comments that were generally supportive, while also raising concerns. One comment supported the modification to include stage II pressure ulcers, but

0337 Pressure Ulcer Rate (PDI 2)

recommended an additional exclusion for patients who are receiving end-of-life care, as it may be too painful to move these patients or if they refuse to be repositioned. One commenter was concerned that provider-level of analysis may have small number issues. The final comment also supported the measure but raised the same concern with provider numbers being too small.

Developer Response:

- The developers are considering a number of important modifications to PDI 02. One of those changes is the inclusion of Stage II Pressure Ulcers, as is consistent with several major pediatric patient safety efforts. They will be considering these changes using clinical and expert panel review and empirical analyses and changes will be implemented if deemed appropriate after this comprehensive evaluation. The developers appreciate the support for including Stage II pressure ulcers in further measure development. Given detailed data, exclusion to the indicator for actively dying patients makes sense from a clinical and patient preference perspective. With administrative data, however, it is difficult to identify patients for whom repositioning is contraindicated. During future indicator refinements, the developers will empirically test methods to exclude patients who may fit this circumstance based on data elements available.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

9. Appeals

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

Submission | **Specifications**

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

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

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

Exclusions: Exclude cases:

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

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

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

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

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

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

Rationale:

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

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

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

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

Rationale:

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

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

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

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

Rationale:

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

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

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

Rationale:

- This measure is currently used in several public reporting programs: ARHQ, National Healthcare Quality & National Healthcare Disparities Reports, Arizona Department of Health Services Hospital Compare, HealthGrades, SunCoast, Kentucky Health Care information Center, Kentucky Hospital Association Quality Data, Maine Health Data Organization and several others.

5. Related and Competing Measures

- This measure does overlap with some disease-specific inpatient death measures that may be included in low-mortality diagnoses; however, the Committee did not specifically discuss the need to harmonize the measures. In addition, this measure is related to measures 352 and 353, the failure to rescue measures when this occurs in a low-mortality diagnosis.

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

6. Public and Member Comment

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

Post Draft Comments Received:

- This measure received two comments, both stating support for the topic but raised concerns that measurement at the provider level may have issues with small numbers.

Developer Response:

- Hospitals with more than 205 eligible discharges, on average, have risk adjusted rates with moderate to high reliability (average signal-to-noise ratio of 0.422 to 0.840). Overall, the signal to noise ratio for this indicator is strong with a weighted mean value of 0.716. These findings were confirmed by Bernal-Delgado et al. (BMC Med Res Methodology 2012; 12:19), who analyzed data from 171-175 Spanish hospitals in 2005-2006. They estimated PSI 02 virtually unchanged (as Spain also uses ICD-9-CM for inpatient coding and MS DRGs for resource allocation). The Empirical Bayes estimator of systematic hospital-level variation in a two-stage hierarchical random effects model was 0.32, similar to the values for other NQF-endorsed AHRQ Patient Safety Indicators. Although "small number issues" may affect hospitals in the lower 20-30% of the national distribution of hospital volume, the high signal to noise ratio supports high reliability. Using more than 1 year of data may further improve the reliability of this measure.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

9. Appeals

0419 Documentation of Current Medications in the Medical Record

Submission | Specifications

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

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

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

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

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

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

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

0419 Documentation of Current Medications in the Medical Record

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

Adjustment/Stratification:

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

Setting of Care: Ambulatory Care : Clinician Office/Clinic

Type of Measure: Process

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

Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

Rationale:

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

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

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

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

Rationale:

- The developers cited a reliability score between 0.97 and 1, which is adequate, and the sample they used was appropriate.
- Validity testing was done at both the data element and the score level.
- For data element testing, 255 randomly selected encounters from 2014 in 3 physician practices were compared to results of extracted EHR reports. Manually extracted records were considered the gold standard. Unadjusted agreement was 88%, kappa was 0.63 (95% CI 0.51-0.75) for numerator agreement. Landis and Koch (1977) have proposed the following as standards for strength of agreement for the kappa coefficient: [less than or equal to] 0.00=poor, 0.01 -0.20=slight, 0.21 -0.40=fair, 0.41- 0.60=moderate, 0.61-0.80=substantial and 0.81-1.00 =almost perfect (high).
- Face validity results at the performance level were not reported and there was no risk

0419 Documentation of Current Medications in the Medical Record

adjustment. There was also no power analysis for the reported sample size.

- However, there were concerns that the measure does not ensure the medication list is accurate because it measures attestation rather than some gold standard of what medications the patient is actually taking.

3. Feasibility: 3-H; 15-M; 2-L; 0-I

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

Rationale:

- There have been four years of reporting. The committee saw no issues with feasibility.
- Data collection obtained through administrative claims, electronic clinical data: electronic health record, electronic clinical data: registries and coded by person not obtaining original information.
- All data elements are in defined fields in electronic health records.

4. Use and Usability: 3-H; 11-M; 6-L; 0-I

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

Rationale:

- The measure has been publically reported through the PQRS for the last 4 years.
- The measure is currently used in the Meaningful Use program.
- The committee had no concerns with usability.

5. Related and Competing Measures

- The Committee decided the following three measures were related, but not competing.
  - 0097 : Medication Reconciliation Post-Discharge
  - 0553 : Care for Older Adults (COA) – Medication Review
  - 0554 : Medication Reconciliation Post-Discharge (MRP)

Standing Committee Recommendation for Endorsement: 14-Y; 6-N

6. Public and Member Comment

Post Draft Comments Received:

- This measure received six comments, all with tepid support. Commenters agreed that accurate medication lists remain an area for improvement and that it is important information. However, all raised concerns with the measure, including:
  - Information provided by patients may be inaccurate or incomplete (particularly for over the counter drugs or supplements), and it is impossible to fully validate;
  - CPT II codes can be challenging for providers who do not use them regularly;
  - A commenter requested the prioritization of measures of adverse drug event outcomes and noted this measure is not linked with a decrease in ADEs.

Developer Response:

- The developer agrees with this comment and recognizes the measure assesses a foundational

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practice and merely sets a minimum requirement a medication review is performed. Without broader adoption of this practice, it will be difficult to realize improvement in adverse drug events (ADEs). The developer will consult with the expert work group to discuss and review approaches to addressing the issue.

- The developer cited several programs that currently use this measure such as the Physician Quality Reporting System (PQRS) program and may be reported via Claims/Registry, GPRO, and EHR

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

9. Appeals

2720 National Healthcare Safety Network (NHSN) Antimicrobial Use Measure

Submission | **Specifications**

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

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

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

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

Adjustment/Stratification:

2720 National Healthcare Safety Network (NHSN) Antimicrobial Use Measure

Level of Analysis: Facility

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

Type of Measure: Process

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

Measure Steward: Centers for Disease Control and Prevention

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

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

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

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

Rationale:

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

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

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

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

Rationale:

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

2720 National Healthcare Safety Network (NHSN) Antimicrobial Use Measure

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

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

Rationale:

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

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

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

Rationale:

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

5. Related and Competing Measures

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

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received 15 comments. All of the comments recognized that antimicrobial resistance is a major public health issue and that antimicrobial stewardship programs can be effective in increasing appropriate use. Supportive comments noted that this is a critical need and that this measure will help establish baselines for antimicrobial use as well as develop a better understanding of the role of antimicrobial use in drug resistance.

  Commenters (including both those supportive and not supportive of the measure) were concerned that while this measure is appropriate for surveillance, it is not yet ready for public reporting and payment programs. Commenters suggested additional reliability and validity testing and suggested that the Committee consider recommending that this measure be excluded from public reporting. These comments also raised concerns that the measure has feasibility issues, noting that a standardized EMR guidance would be needed, as well as

2720 National Healthcare Safety Network (NHSN) Antimicrobial Use Measure

significant lead time to ensure that facilities have the necessary data mining capabilities. It was noted that this is a challenging topic to measure and additional concerns were raised about the selection of some of the drugs used in the measure. Commenters also raised concerns with the difference between utilization and appropriateness, noting that appropriateness incorporates many factors that were not fully accounted for, including geography, seasonal variation, prevalence, and patient mix, all of which could affect predicted use. Commenters noted the need for risk adjustment for cancer and transplant patients and the importance of controlling for differences between types of hospitals and the complexity of their patient population. One comment was particularly concerned with the pediatric population, noting that it is more complex than an adult population, and that the pediatric sample size was extremely small; they suggested further testing. Lastly, a commenter suggested this measure be expanded to include antifungal agents.

Developers Response:

- The developer agrees that the measure is not yet ready for public reporting or incentive payment. However, they recommend use of the measure for quality improvement by hospitals, specifically as a benchmark that can assist efforts by antimicrobial stewardship programs to monitor antimicrobial use and foster data-driven improvements. The data used to predict antimicrobial use (AU) were reported to CDC's National Healthcare Safety Network (NHSN) in 2014 by a geographically diverse set of 60 U.S. hospitals including acute care hospitals, critical access hospitals, children's hospitals, and an oncology hospital. Each of these hospitals successfully implemented and validated the AU data reported electronically to NHSN, demonstrating the feasibility of implementation across a variety of hospital types. The summary statistics proposed for the measure are designed to provide benchmarks for antimicrobial use not appropriateness of use. As stated in the measure proposal, these summary statistics are a starting place for further analysis and possible action. Additional analyses to determine the appropriateness of antibiotic use are likely to require access to detailed, patient-level data that is beyond the scope of data collection and analysis using NHSN, e.g., clinical indications for specific antibiotics and dose and duration decisions. The developer appreciates concerns about antimicrobial agents that are not included in the antibacterial agent-patient care location categories and would be grateful to know which agents in particular have been omitted and "are often the most inappropriately used." The measure construct is extensible to additional antibacterial agent-patient care location pairings. The specific pairings included in the measure proposal are the product of extensive consultation with infectious disease physicians and pharmacists who are at the forefront of antimicrobials stewardship programs (ASPs) at their hospitals/health systems and the measure is intended for use by ASPs throughout the U.S. The developer agrees with the importance of including antifungal agents in the measure. They plan to do so when antifungal use data reported to CDC's National Healthcare Safety Network (NHSN) are sufficient to add antifungal agents to the measure.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

9. Appeals

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

Submission | **Specifications**

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

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility

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

Type of Measure: Outcome

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

Rationale:

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

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

but has been stable since the third quarter of 2013.

- The Committee agreed that there was sufficient evidence to demonstrate that falls assessment, plans of care, and interventions are effective in reducing falls in nursing homes.

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

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

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

Rationale:

- The measure captures variation across facilities. At least 10 percent of facilities had 6.6 percent of residents who had fallen with a major injury, a rate more than twice the facility average.
- The measure is not risk adjusted, because by admitting the resident, the facility is assuming responsibility for them.
- There were sufficient results for both reliability and validity; therefore the Committee thought that the scientific validity of this measure was adequate.

3. Feasibility: 18-H; 6-M; 0-L; 0-I

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

Rationale:

- It is a single question in the MDS; reporting via MDS is something nursing homes are required to do on a regular basis, therefore there were no concerns about feasibility.

4. Use and Usability: 17-H; 7-M; 0-L; 0-I

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

Rationale:

- The measure is currently used in Nursing Home Compare and is publically reported, so the Committee was not concerned about use and usability of this measure.

5. Related and Competing Measures

- This measure is related to, but not competing with:
  - 141: Patient Fall Rate (ANA)
  - 202: Falls with Injury (ANA)

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

6. Public and Member Comments

Post Draft Comments Received:

- Comments were in support of endorsement.

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

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

9. Appeals

0202 Falls with injury

Submission | **Specifications**

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

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

Measure focus is safety.

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

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

Included Populations:

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

• Patient injury falls occurring while on an eligible reporting unit

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

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

Included Populations:

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Team

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

Type of Measure: Outcome

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

Measure Steward: American Nurses Association

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

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

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

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

Rationale:

- Patient falls are the most frequently reported adverse event; falls with injuries is one of nine hospital-acquired conditions that have been identified as preventable and targeted in CMS's Partnership for Patients. Reporting through the Partnership for Patients program showed a reduction in falls and falls with injuries over three years of using this measure.

- Committee members discussed potential unintended consequences, such as increased use of Foley catheters to prevent patients from walking to the bathroom, but there isn't research

0202 Falls with injury

available on this issue at this time. The developers did note that they are seeing increased fall rates in surgical units over time since surgical patients are now encouraged to get up and walk sooner; they see this as an area that can be targeted for improvement that would not have been identified without this measure.

- There are areas excluded in this measure (pediatric, psychiatric, obstetric, and neurology units) that the Committee is interested in seeing the measure expanded to cover; the developers agreed these are areas of interest.
- The Committee agreed there is very strong evidence for the importance of the measure but that gaps remain.
- Longitudinal studies based on NDNQI data show improvement in falls over time. In addition, a recent report from AHRQ shows an estimated 17% reduction in hospital acquired conditions.

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

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

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

<u>Rationale</u>:

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

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- The developers assessed the association between each hospital's score and true injury fall rates across 5000 bootstrap samples using Spearman's rank correlation. The mean correlation from this analysis was 0.79±.01, with values ranging from 0.76-0.82.
- Both face and construct validity were also rated highly by the Committee.

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

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

Rationale:

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

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

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

Rationale:

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

5. Related and Competing Measures

- This measure is related to and fully harmonized with 141: Patient Fall Rate (ANA).
- It is also related to 674, Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS).
- There are no competing measures.

Standing Committee Recommendation for Endorsement: 23-Y; 0-N

6. Public and Member Comment

Post Draft Comments Received:

- This measure received 30 comments supporting re-endorsement (particularly with the expanded level of analysis), from a variety of nursing associations and patient advocacy groups. One comment, while supporting the measure, requested that additional work be done to harmonize measures across settings of care. The comment also noted that all falls measures be re-evaluated after the release of the upcoming USPSTF study on the effectiveness of falls prevention measures to ensure all endorsed measures are aligned with the best evidence.

Developer Response:

- The measure, as currently defined, is being proposed for acute care hospitals and their units. Currently, testing is being conducted on an expanded measure including pediatric and psychiatric units, which could be implemented in the future.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

0202 Falls with injury
9. Appeals

0141 Patient Fall Rate

Submission | **Specifications**

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

(Total number of falls / Patient days) X 1000

Measure focus is safety.

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

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

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

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

Included Populations:

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Team

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

Type of Measure: Outcome

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

Measure Steward: American Nurses Association

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

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

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

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

Rationale:

- The evidence demonstrates that both structural and process variables contribute to patient falls. They additionally provide evidence for patient falls with injury as a nationally identified patient safety concern, and that the identification of unit-based falls will provide performance data for developing unit-specific falls prevention programs to reduce the number of patient falls.
- The developers report there is little conclusive evidence on effective fall reduction, with some studies demonstrating reduced falls from falls prevention programs, and others inconclusive.
- In studies resulting with reduced falls, multifactorial falls interventions have been shown to

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reduce fall rates, and hospital/unit structures, staffing and falls prevention programs variables impacting fall rates.

- The measure is risk stratified based on 6 risk categories.
- There is limited disparities information available and the Committee encouraged the developer to look to expanding that in the future.
- Research shows fall rates vary between 3.3 and 11.5 falls/1000 patient days.
- Therefore, the Committee agreed that one or more healthcare actions were associated with this outcome measure.

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

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

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

<u>Rationale</u>:

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

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

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

<u>Rationale</u>:

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

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have concerns about feasibility.

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

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

Rationale:

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

5. Related and Competing Measures

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

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received 27 comments supporting re-endorsement (particularly with the expanded level of analysis), from a variety nursing associations and patient advocacy groups. Only two comments where opposed to endorsement; one suggested that the definition of falls is too broad and both comments raised implementation concerns because the measure relies on electronic or paper medical records rather than administrative claims.

Developers Response:

- Data is collected through incident reporting systems which are electronic and already in place in most hospitals. Feasibility studies have shown this measure has low a burden for hospitals currently collecting data. Collecting injury levels happens in the medical record 24 hours after the fall, because assignment of injury level has to follow medical evaluation. Assisted falls are built into the measure through NDNQI, but aren't currently included in this definition of the measure. Reason for fall has also been added to the NDNQI measure, but has not been fully tested. These are potential revisions that could be made to the measure in the future.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

9. Appeals

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

Submission | **Specifications**

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

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

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility

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

Type of Measure: Outcome

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

Rationale:

- According to the developer, pressure ulcers among long-term nursing facility residents are an important health outcome. Nursing facility residents are at risk for developing new pressure ulcers. In addition, the presence of pressure ulcers can be indicative of the quality of care received by patients in long-term nursing facilities.
- Many pressure ulcers are preventable with the application of evidence-based guidelines.

Further, many of the intrinsic and extrinsic risk factors for pressure ulcers are associated with nursing facility care processes.

- The mean performance score was 7.7%, facilities in the 10th percentile scored 2.2%, and the 90th percentile scored 14.3%.

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

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

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

<u>Rationale</u>:

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

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

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

<u>Rationale</u>:

- Data collection through electronic clinical data and coded by someone other than persons

obtaining original information.

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

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

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

Rationale:

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

5. Related and Competing Measures

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

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received two comments that were generally supportive. One comment also suggested the addition of wheelchair bound patients to the denominator.

Developers Response:

- The denominator for NQF #0679 includes all long-stay nursing home residents (length of stay is greater than 100 days) who had a target MDS assessment (OBRA, PPS, or discharge) during the selected measurement quarter and were identified as at high risk for pressure ulcer, except those meeting exclusion criteria. Residents must be high risk for pressure ulcer where high risk is defined by meeting one of the following criteria on the selected target assessment: 1. Impaired in bed mobility or transfer: This is indicated by a level of assistance reported on either item G0110A1), bed mobility (self-performance) or G0110B1 Transfer (self-performance) at the level of: extensive assistance, total dependence, activity occurred only once or twice OR activity or any part of the activities of daily living was not performed by resident or staff at all over the entire 7 day period. MDS 3.0 G0110B transfer includes how the resident moves between surfaces including to or from: bed, chair, wheelchair, standing position (excludes to/from bath/ toilet). Using the impairments in bed mobility and transfer as criteria should capture a large proportion of wheelchair bound long-stay residents in the denominator.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

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

Submission | Specifications

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

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility

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

Type of Measure: Process

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

Rationale:

- The mean facility levels for this measure were 1.2 percent in quarter two of 2014 and the median was zero; only two-thirds of facilities have perfect scores of zero, which means there is still room for improvement. The Committee expressed that all facilities should be score at zero.
- According to the developer, there is also evidence that certification and public reporting of data has led to decreased levels of restraint use. Nursing home accreditation has been associated with lower rates of restraint use.
- The evidence was determined to be adequate, and although there is a narrow performance gap there are wider gaps among racial and ethnic minorities.

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- The national facility-level mean and median performance scores have trended steadily downward since the adoption of the MDS 3.0, indicating a general improvement in performance over time.
- Differences in the rate of restraint use by race/ethnicity were found to be statistically significant. Hispanic residents had the highest rate at 1.6%, followed by Asian residents at 1.5%, white residents at 1.2%, and Black residents at 1.0% daily restraint use.

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

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

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

Rationale:

- There is a facility to nurse rater agreement ranging from 0.746 to 0.844 (considered high).
- The signal-to-noise ratio is 0.84, which is acceptable for the facility level.
- The developers presented stratified means that show that 66.4 percent of facilities had scores that were statistically significant from the main at a 95 percent confidence interval.
- The limit of restraints to in-bed patients, and limit of restraints to in-chair or out-of-bed both had a high level of agreement.
- The gold standard in nursing ratings has a high level of agreement for all items included in the measure.

3. Feasibility: 19-H; 2-M; 0-L; 0-I

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

Rationale:

- Data collection is through electronic clinical data and generated or collected by and used by healthcare personnel during the provision of care.
- All data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS). The developers state that the general data collection method for the MDS 3.0 is currently in operational use and mandatory for all Medicare/Medicaid certified nursing facilities.
- Therefore, the Committee had no concerns about feasibility.

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

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

Rationale:

- The measure is currently used in the Nursing Home Quality Reporting System for public reporting as well as quality improvement. It is also used for external quality improvement and bench marking in the Certification and Survey Provider Enhanced Reports.

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- Therefore, the Committee had no concerns about usability.

5. Related and Competing Measures

- This measure is related to one measure:
  - 0640 HBIPS-2 Hours of physical restraint use (The Joint Commission)

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure also received two comments supporting re-endorsement. In addition, one comment requested that measurement of the utilization of restraint alternatives (chemical use vs. non-chemical alternatives) also needs to be evaluated along with physical restraint to prevent unintended consequences.

Developers Response:

- This measure is currently restricted to long-stay patients cared for in a nursing facility. The specifications for this measure are designed for the evaluation of the quality of nursing facility care. CMS's Nursing Home Compare also publicly reports a measurement of utilization of chemical alternatives to physical restraints: Percent of Long-Stay Residents Who Newly Received an Antipsychotic Medication, which indicates the proportion of long-stay residents without schizophrenia, Tourette's syndrome, or Huntington's disease who received an antipsychotic medication (MDS N0410A={1,2,3,4,5,6, or 7}) in the target period.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

9. Appeals

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

Submission | Specifications

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

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility

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

Type of Measure: Outcome

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

<u>Rationale</u>:

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

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

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

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

<u>Rationale</u>:

- Two additional exclusions have been applied to this measure since its original endorsement in 2011. Patients receiving hospice care or with a prognosis of life expectancy of less than six months are excluded since weight loss is expected in elderly patients with end stage disease, and weight maintenance or gain is not consistent with end of life care or patient preferences. These exclusions underwent additional testing that supported the decision to remove them; the exclusions are also supported by public comments and a subject matter expert.
- The developer noted that testing indicates this measure can successfully distinguish facilities in which there is quality concerns related to weight loss from high quality nursing homes where

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residents' nutritional status is managed very well.

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

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

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

Rationale:

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

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

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

Rationale:

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

5. Related and Competing Measures

- No related or competing measures noted.

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

6. Public and Member Comment

Comments Received:

- The single comment on this measure raised the issue of appropriateness for health plan level measurement; however it is not specified at that level. The commenter also noted that evidence shows that nursing home patients have a higher mortality rate in the six months

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following a 10% loss of bodyweight.

Developers Response:

- NQF #0689 is an outcome measure that reports the percentage of long-stay nursing home residents with a target MDS assessment that indicates a weight loss of 5% or more in the last 30 days or 10% or more in the last 6 months, which is not a result of a physician-prescribed weight-loss regimen. Long-stay residents are identified as residents who have had at least 101 cumulative days of nursing facility care. This measure is currently restricted to long-stay patients cared for in a nursing facility. The specifications for this measure are designed for the evaluation of the quality of nursing facility care. The developer appreciates the comments on the association between weight loss and mortality among nursing home residents, and shares the same understanding. The evident higher mortality associated with excessive weight loss is one of the fundamental and most important reasons for publicly reporting this quality measure for nursing homes.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

9. Appeals

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

Submission | Specifications

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

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

Denominator Statement: All patients.

Exclusions: None

Adjustment/Stratification:

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

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

Type of Measure: Outcome

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

Measure Steward: Montefiore Health System

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

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

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

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

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

Rationale:

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

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

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

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

Rationale:

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

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

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

Rationale:

- Data collection electronic clinical data (i.e., EHR, Imaging/Diagnostic Study, Laboratory, Pharmacy,

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

- Registry) that is generated or collected by and used by healthcare personnel during the provision of care.
- The measure uses data that are routinely and automatically collected, and is readily available.
- All data elements are in defined fields in electronic health records (EHRs).
- Therefore, the Committee had no concerns about the feasibility of this measure.

4. Use and Usability: H-9; M-11; L-0; I-0

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

Rationale:

- The Committee felt the measure was easy to use and implement across health systems.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-19; N-1

6. Public and Member Comment

Post Draft Comments Received:

This measure received six comments, some supporting the intent but some raising concerns. The four comments that did not support the measure raised a variety of concerns, including:

- A concern that the measure could undermine the fair and just culture in hospitals;
- Concerns with the lack of exclusions, especially in cases where certain protocol orders are automated and then retracted by a physician;
- A comment noting that this measure does not focus on patient outcomes, rather, it focuses on staff errors.

The two supportive comments raised additional concerns, including:

- A concern that 10 minutes may not be long enough and that the measure could be potentially "gamed" by waiting longer;
- One comment included multiple concerns including suggesting a longer time window, potential false positives, a suggestion that the specificity should be increased for long-term use, possible unintended consequences of deterring self-reports, and inconsistencies in the denominator.

Developers Response:

- The measure is designed to hold health systems and vendors accountable for the design and configuration of their EHRs that may increase the risk of wrong-patient errors and to test the effectiveness of interventions. It is not designed as a measure of individual provider performance.
- Once a provider realizes that they have placed an order on the wrong patient, they are highly motivated (if not anxious) to remove that order before any actions are taken as a wrong patient error is an egregious mistake. For example, in a JAMIA paper the developers report that 6,885 WP RAR events occurred in one year at one hospital, and the mean time of retraction was just 1 minute and 18 seconds. They tested a longer window, and it increased false positives (not a good option).

2723 Wrong-Patient Retract-and-Reorder (WP-RAR) Measure
○ Since submission, a second hospital (the VA New York Harbor Healthcare System) has replicated the measure in a different EMR, and has also replicated the validation process with near-real time phone calls. To date 45 out of 58 calls were true positives with a PPV of 77.6%. This PPV is very similar to the original PPV of 76.2% and is reassuring. **Committee Response:** • The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

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

Submission | **Specifications**

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

A) Screening for Future Fall Risk:

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

B) Falls Risk Assessment:

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

C) Plan of Care for Falls:

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

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

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

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

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

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

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

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

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

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

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

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

Adjustment/Stratification:

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

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

Type of Measure: Process

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

Measure Steward: National Committee for Quality Assurance

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

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

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

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

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

Rationale:

- Evidence supported by the USPSTF, the American Geriatric Society, the British Geriatric Society, and the American Organization of Orthopedic Surgeons. However, there is more evidence on plans of care than assessments of falls being links to lower fall rates.
- The measure focuses on people who have fallen more than once or who have had an injurious fall.
- The reported rates demonstrate room for improvement as well as disparities in performance.

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

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

2a. Reliability: **11-H; 11-M; 1-L; 0-I** 2b. Validity: **8-H; 14-M; 1-L; 0-I**

Rationale:

- This is a long-endorsed measure that is currently in use and the Committee had no concerns regarding the reliability or validity. After the original endorsement, additional reliability testing was performed in 2013 at the data element level; the measure has undergone face validity testing.
- Reliability testing was done at the data element level. The denominators across all three rates had a 100% rate. The numerators had kappa scores above 0.90.
- For a systematic assessment of face validity, the AMA-convened Physician Consortium for Performance Improvement (PCPI) oversees the measure development process of clinically relevant physician-level performance measures. The scale was used 1-5, where 1=Strongly Disagree; 2= Disagree; 3=Neither Disagree nor Agree; 4= Agree; 5=Strongly Agree
    - Mean scores were:
        - Results for Future Fall Risk:4.30
        - Results for Risk Assessment for Falls: 4.39
        - Plan of Care for Falls: 4.35

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

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

Rationale:

- The measure is collected through administrative claims, electronic claims, and paper medical records. Again, as a long-standing measure, there were no concerns regarding feasibility.

4. Use and Usability: 4-H; 17-M; 2-L; 0-I

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

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

Rationale:

- Through its inclusion in PQRS, physicians who chose to report on this measure are paid for reporting, not performance. However, the screening element of the measure is also included in the GPRO program, which requires reporting and is beginning to pay for performance; PQRS is expected to move towards being a penalty program in the near future.

5. Related and Competing Measures

- This measure is related to 0035: Fall Risk Management (NCQA) and 0537: Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate (CMS). There are no competing measures.

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received six comments, from a variety of organizations, with mixed levels of support; some were urging the Committee to reconsider endorsement as the measure is currently specified. All comments cited the importance of measurement in this area. Two comments raised concerns with use of CPT II codes and mentioned the burden on providers because it requires data from medical charts to calculate the numerator unless a random sampling methodology is used. One comment recommended the measure be broken into three individual measures and another suggested that the measure be closely aligned to the Medicare Annual Wellness visit that includes all risk assessment and personalized health advice aimed at fall prevention. Lastly, one comment suggested removing nursing home and assisted living patients from the denominator because the process of gathering information to accurately report the measure has created an undue burden.

Developers Response:

- The developers acknowledged the need to harmonize with the Medicare Annual Wellness visit. Providers conducting an assessment and offering evidenced-based falls risk interventions as part of the Medicare Annual Wellness visit would meet the numerator for the rates in this measure. The three rates on this measure were combined into a single measure at the request of the NQF Patient Safety Committee when the measure was presented for re-endorsement in 2012. The developers are willing to separate the measures into their original format if the Standing Committee advises. Finally, the developers agree not all patients have the resources to attend physical therapy or exercise programs beyond those benefits covered by Medicare. However, it is important providers advise patients about the need for this type of intervention and help connect seniors to resources, such as falls risk prevention programs, in their communities.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

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

9. Appeals

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

Submission | Specifications

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

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

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

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

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

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

Numerator Statement: Four separate numerators are as follows:

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

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

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Team

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

Type of Measure: Structure

Data Source: Management Data, Other

Measure Steward: American Nurses Association

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

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

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

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

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

Rationale:

- The developer presented information stating that nurses have the accountability, responsibility, and authority for bedside care that directly impacts patient outcomes, including mortality, length of stay, failure to rescue, and many hospital acquired conditions. Research demonstrates that the number of nurses and their licensure level are closely linked to outcomes. This measure focuses on the percentage of total productive nursing hours worked by each licensure level, that is, RN, LPN and unlicensed personnel. This structural measure, along with 205, focuses on the ability of nurses to care for patients and provide the necessary surveillance needed for safe and reliable care.
- Committee members noted the robust evidence table linking skill mix and outcomes.
- The Committee agreed that workforce determinants are a foundational element to assure patient safety and that the 15 years of evidence behind the measure is very strong, showing that the higher the skill mix, the fewer adverse events.
- The evidence is strongest for RN/LVN mix and less strong on whether agency mix (contract vs. regular staff) is associated with adverse outcomes for patients; further research is needed in this area.

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

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

2a. Reliability: **10-H; 13-M; 1-L; 0-I** 2b. Validity: **7-H; 17-M; 0-L; 0-I**

Rationale:

- This measure has been endorsed for many years at the unit level; this maintenance submission also includes a hospital-level analysis.
- Reliability testing was done at the performance score level and tested the stability of measures across time. Reliability at the Unit-Level and Hospital-Level were reported for Skill Mix (%RN %) and ranged from 0.82-0.87. (>0.8 is high reliability).
- Due to the long-standing use of the measure, the Committee had no concerns regarding the validity and reliability of the measure.

3. Feasibility: 15-H; 9-M; 0-L; 0-I

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

Rationale:

- Data for this measure is collected through the nursing-sensitive indicator data systems by each hospital and returned quarterly for review and operational improvement at the hospital level. It is a combination of manual and electronic collection. Hospitals report that it is not a huge burden to collect and most of it is electronic.

4. Use and Usability: 9-H; 13-M; 1-L; 1-I

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

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

Rationale:

- The measure is used in NDNQI. The developers noted that the hospitals participating in this program are not fully representative of the general population (they tend to be larger, academic medical centers or magnet hospitals) but that it is becoming more representative over time.
- Long-term the developer hopes to move this measure into Hospital Compare.
- The data on this measure has been collected for over 15 years, but has not been shared with the public. However, some states are publically reporting the data but that is new and trends are not yet available.

5. Related and Competing Measures

- Related to 205: Nursing Hours per Patient Day (ANA).
- No competing measures.

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

6. Public and Member Comment

Post Draft Comments Received:

- Comments were in favor of the Committee's decision to recommend the measure for endorsement

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

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

9. Appeals

0205 Nursing Hours per Patient Day

Submission | Specifications

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

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

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility, Clinician : Team

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

0205 Nursing Hours per Patient Day

Type of Measure: Structure

Data Source: Management Data, Other

Measure Steward: American Nurses Association

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

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

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

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

Rationale:

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

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

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

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

Rationale:

- This maintenance measure is adding a new level of analysis, hospital-level.
- In 7,961 units from 1,186 hospitals in the NDNQI database were used. Data from the unit-level and hospital-level are presented. Inter-Class Coefficients at the unit level were 0.73-0.81 and at the hospital-level it was 0.79 for RN hours, for LPN/LVN hours it was 0.89-0.94 at the unit level, and 0.95 at the hospital-level. For UAP hours it was 0.77-0.80 at the unit level, and 0.77 at the hospital level. Total hours were 0.69-0.73 at the unit level and 0.87 at the hospital-level. In

0205 Nursing Hours per Patient Day

general ICC > 0.8 indicates high reliability, > 0.6 is acceptable.

- For Unit-level Validity, the correlation coefficients between the RN care hours measure (adjusted for patient days) and RN reported nurse staffing measures were -0.86 for RN reported maximum number of patients on last shift, and -0.85 for RN reported total number of patients on last shift, indicating strong convergent validity. There were some variations by unit types. When stratified by unit types, the correlation coefficients between RN care hours measure and RN reported maximum number of patients on last shift ranged from -0.46 (critical care units) to -0.74 (step-down units); and the correlation coefficients between RN care hours measure and RN reported total number of patients on last shift ranged from -0.40 (critical care units) to -0.69 (step-down units). These findings indicate moderate to strong correlations between the RN care hour's measure and RN-reported nurse staffing measures.

- For Hospital-level Validity, the correlation coefficients between the RN Hours measure (adjusted for patient days) and RN reported nurse staffing measures were -0.50 for RN reported maximum number of patients on last shift, and -0.48 for RN reported total number of patients on last shift. The correlation coefficients at the hospital-level indicate acceptable validity.

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

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

Rationale:

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

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

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

Rationale

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

5. Related and Competing Measures

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

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

6. Public and Member Comment

Post Draft Comments Received:

- Comments were in favor of the Committee's decision to recommend the measure for endorsement

0205 Nursing Hours per Patient Day
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2726 Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections
Submission | **Specifications**
Description: Percentage of patients, regardless of age, who undergo central venous catheter (CVC) insertion for whom CVC was inserted with all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques followed **Numerator Statement**: Patients for whom CVC was inserted with all elements of maximal sterile barrier technique*, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques** followed Definitions: *Maximal sterile barrier technique includes ALL of the following elements: • cap • mask • sterile gown • sterile gloves • sterile full body drape ** Sterile ultrasound techniques require sterile gel and sterile probe covers **Denominator Statement**: All patients, regardless of age, who undergo CVC insertion **Exclusions**: None The measure includes a denominator exception as indicated by reporting 6030F-1P for the numerator: Documentation of medical reason(s) for not following all elements of maximal sterile barrier technique, hand hygiene, skin preparation and, if ultrasound is used, sterile ultrasound techniques during CVC insertion (including increased risk of harm to patient if adherence to aseptic technique would cause delay in CVC insertion) **Adjustment/Stratification**: **Level of Analysis:** Facility, Clinician : Group/Practice, Clinician : Individual, Clinician : Team **Setting of Care:** Hospital/Acute Care Facility **Type of Measure**: Process **Data Source**: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Registry **Measure Steward**: American Society of Anesthesiologists
STANDING COMMITTEE MEETING 06/17/2015-06/18/2015 **1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>** (1a. Evidence, 1b. Performance Gap) 1a. Evidence: **14-H; 7-M; 0-L; 0-I**; 1b. Performance Gap: **6-H; 8-M; 7-L; 0-I;** <u>Rationale</u>: • This measure reviews the use of preventive measures for preventing central line infection at the time the line is placed. The developer stated that this is an important process measure for anesthesiologists, because they are often the ones placing the line in the operating room or ICU

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but then not involved in later care when the complications are occurring. Since the process and outcome are separated by time and professional service the process measure is fundamental to preventing CVC-related bloodstream infections. The developers clarified that any providers who place central lines are eligible to report.

- There is a very strong connection with outcomes and AHRQ has reported a precipitous drop in CLABSI central line infections since this measure has been in use. 51% of hospital acquired infections occur in the ICU and CVC is likely the largest risk factor.
- The Committee agreed there is strong evidence behind this measure.
- The developer reports that 60-70% of anesthesiologists are reporting the measure when lines are placed so they noted a significant gap in utilization and reporting, but when it is reported it is quite successful, mostly in the low 90 percent but many achieve 100% performance. The Committee was concerned about a potential lack of gap since reported performance is so high but ultimately decided that there is a large gap in reporting that indicates a potential gap in performance.
- The Committee was concerned that some of the data submitted was dated from 2002, but the developers explained there was no more recent published data.
- Another Committee member questioned the need for both process and outcome measures around this issue. The developer explained that both are needed in this case: the outcome is what is important to patients and facilities, but the process measure looks at what one of the biggest risk factors for an infection to happen, as well as the group of providers who are putting the line in but not managing or taking care of the patient long-term. It was noted this is a clinician-level measure that can also be reported at practice and facility level, while the outcome measure is a hospital-level measure.
- A Committee member raised the concern that this measure should not apply to premature infants, who are likely to have adverse effects from the skin preparation solutions.

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

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

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

<u>Rationale</u>:

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

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

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/

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unintended consequences identified 3d. Data collection strategy can be implemented)

Rationale:

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

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

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

Rationale:

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

5. Related and Competing Measures

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

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received five comments that all expressed support for measurement in this area but all highlighted points of concern. These concerns pointed to potential challenges documenting and reporting the measure. One comment stated that the measure may present a challenge when patients are transferred from another facility with a central line already in place. A few comments stated that a review of best practices may be more beneficial than monitoring.

Developer Response:

- Anesthesia providers and others who perform central line insertion influence patient outcomes because of this process of care. The healthcare industry has already seen this result in the lowered the rate of bloodstream infections (after implementation of NQF #0464 and other related measures) and there are national campaigns to drive the Bloodstream Infections closer to zero. The developers recognize that we cannot control what happens to the patient over their length of stay, but anesthesia providers (and their practices and those within the anesthesia care team) have the clinical responsibility to ensure that CVC-Related Bloodstream infections are reduced. The developers appreciate the concern with patients who are transferred from one location to another location. They will take that under consideration as the role of quality and performance reporting continue to evolve. Previous specifications of this measure have used the CPT II Code and the developers anticipate few issues with implementing

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this measure. ASA is aware of the need to develop the e-specifications for this particular measure and they are open to collaboration between interested parties to ensure that all anesthesia and other healthcare providers have the means to report this measure. **Committee Response:** • The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2732 INR Monitoring for Individuals on Warfarin after Hospital Discharge
Submission | Specifications
Description: Percentage of adult inpatient hospital discharges to home for which the individual was on warfarin and discharged with a non-therapeutic International Normalized Ratio (INR) who had an INR test within 14 days of hospital discharge **Numerator Statement**: Individuals in the denominator who had an INR test within 14 days of discharge **Denominator Statement**: Adult inpatient discharges to home for which the individual had active warfarin therapy within 1 day prior to discharge and the last monitored INR within 7 days of discharge was <=1.5 or >= 4 **Exclusions**: The following inpatient discharges are excluded from the denominator. The following exclusion is identified from the Medication Administration Record (MAR) within the patient's EHR. 1) Inpatient discharges for which the individuals received dabigatran, rivaroxaban, or apixaban within one day prior to discharge The following exclusions are identified from Part A and Part B Medicare Administrative Claims. 2) Inpatient discharges for which the individuals are monitoring INR at home 3) Inpatient discharges for which the individuals expired within 14 days post-discharge 4) Inpatient discharges for which the individuals received hospice care within 14 days post-discharge 5) Inpatient discharges for which the individuals had a hospital inpatient admission within 14 days post-discharge 6) Inpatient discharges for which the individuals were admitted to a skilled nursing facility (SNF) within 14 days post-discharge 7) Inpatient discharges for which the end date of the 14-day follow-up period occurs after the end of the measurement period 8) Inpatient discharges for which the individual is not enrolled in Medicare Part A and Part B at the time of discharge and during the 14-day follow-up period post discharge. **Adjustment/Stratification**: **Level of Analysis:** Facility **Setting of Care:** Hospital/Acute Care Facility **Type of Measure**: Process **Data Source**: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health

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Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Pharmacy

Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

<u>Rationale</u>:

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

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

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

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

<u>Rationale</u>:

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

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

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

<u>Rationale</u>:

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

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

(Meaningful, understandable, and useful to the intended audiences for 4a. Public

2732 INR Monitoring for Individuals on Warfarin after Hospital Discharge

Reporting/Accountability and 4b. Quality Improvement)

Rationale:

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

5. Related and Competing Measures

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

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received four comments which expressed support for the concept but there were a few concerns raised. One comment questioned how the INR information will be captured because it may be burdensome. Another comment suggested making changes to the denominator definition, revising the upper bound from INR>=5 and INR>=4 and making discharged hospitals accountable for patient follow-up.

Developer Response:

- The developers agree that there is evidence indicating a number of different ranges to define therapeutic INR. However, this measure is designed to detect a pre-discharge INR that is more than 0.5 outside of two of the more common of these varying ranges: between 2.0 and 3.0 for most patients and from 2.5 to 3.5 for patients with mechanical valves. The range was selected by a technical expert panel to represent a conservative estimate for an event where there is no single standard, particularly with respect to the higher end where a therapeutic range can be as high as 5.0. The numerator examines whether the INR monitoring has occurred and does not require a numeric INR value. All data required to calculate the measure are obtained through a mix of administrative claims and EHR data. Feasibility tests demonstrated that all required data elements were found to be available in the EHR systems tested. Providers are not required to conduct medical record abstraction.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for endorsement.

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

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

9. Appeals

Measures Recommended With Reserve Status

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

Submission | Specifications

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

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

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

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

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Home Health

Type of Measure: Process

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

Rationale:

- Older people receiving home healthcare have relatively high rates of falls, which are associated with injuries, increased use of healthcare resources, and increased mortality. 28-30% of people receiving home health care have a history of two or more falls, or a serious fall in the last 12-month period, and 88% of those receiving the assessment are considered at risk for falls. As mentioned in the other falls discussions, the American and British Geriatric Societies clinical practice guidelines recommend use of a multifactorial fall risk assessment, as does a Cochrane Review.

- This process measure encourages use of a systematic multifactorial assessment for falls risk and provides home health agencies and consumers with information that will enable them to monitor the extent to which fall risk assessment is conducted for ambulatory patients. While 82% of home health agency users are over 65, this measure is not limited to that population.

- The Committee noted that the evidence for the measure is based on American Geriatric Society guidelines for ambulatory care people in the community, but this is a home health care measure. However, they agreed the evidence for the measure was there.

- There is limited room for improvement on this measure, because it has a mean performance score of 96-98%.

- The developer explained the measure seems to be very effective, since only 7% of home health patients going for emergency care are going due to a serious fall.

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

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

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

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

Rationale:

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

3. Feasibility: 10-H; 11-M; 0-L; 0-I

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

Rationale:

- This measure is calculated with data from the mandated OASIS-C data set that home health agencies collect these data as part of comprehensive patient assessments. All data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS).

4. Use and Usability: 3-H; 14-M; 4-L; 0-I

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

Rationale:

- The Committee thought this was quite useful in terms of home health as emerging evidence shows that falls in the home are different than outside the home.
- The measure was first endorsed in 2008 and at that time the assessments were not being done at such a high rate; patients are now being assessed in a systematic way using evidence-based tools.
- The measure is in use in Home Health Compare.

5. Related and Competing Measures

- The Committee had some question about the burden due to the similar measures collected in other settings, but was assured by the developer that since this assessment is done in the home; it is quite different from other settings such as hospitals or nursing homes. They do plan to harmonize to the extent possible. The Committee did note that information systems are different across settings which can make harmonization challenging but that should be improved in the next few years.
- Related measures include 0035: Fall Risk Management and 0101: Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls (NCQA).
- No competing measures.

0537 Multifactor Fall Risk Assessment Conducted For All Patients Who Can Ambulate
Standing Committee Recommendation for Endorsement: 14-Y; 7-N
Reserve Status: 21-Y; 1-N **Because of the limited room for improvement, the Committee recommended this measure for reserve status after it met all the other criteria and was recommended for endorsement.**
6. Public and Member Comment **Post Draft Comments Received:** ○ Comments were in favor of the Committee's decision to recommend this measure for endorsement under reserve status.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0538 Pressure Ulcer Prevention and Care
Submission | Specifications
Description: Pressure Ulcer Risk Assessment Conducted: Percentage of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers at start/resumption of care. Pressure Ulcer Prevention Included in Plan of Care: Percentage of home health episodes of care in which the physician-ordered plan of care included interventions to prevent pressure ulcers. Pressure Ulcer Prevention Implemented: Percentage of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented. **Numerator Statement**: Pressure Ulcer Risk Assessment Conducted: Number of home health episodes of care in which the patient was assessed for risk of developing pressure ulcers either via an evaluation of clinical factors or using a standardized tool, at start/resumption of care. Pressure Ulcer Prevention Included in Plan of Care: Number of home health episodes of care in which the physician-ordered plan of care included interventions to prevent pressure ulcers. Pressure Ulcer Prevention Implemented: Number of home health episodes of care during which interventions to prevent pressure ulcers were included in the physician-ordered plan of care and implemented. **Denominator Statement**: Pressure Ulcer Risk Assessment Conducted: Number of home health episodes of care ending during the reporting period, other than those covered by generic exclusions. Pressure Ulcer Prevention Included in Plan of Care: Number of home health episodes of care ending during the reporting period, other than those covered by generic exclusions. Pressure Ulcer Prevention Implemented: Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions. **Exclusions**: Pressure Ulcer Risk Assessment Conducted: No measure-specific exclusions. Pressure Ulcer Prevention Included in Plan of Care: Episodes in which the patient is not assessed to be at risk for pressure ulcers. Pressure Ulcer Prevention Implemented: Number of home health episodes in which the patient was not assessed to be at risk for pressure ulcers, or the home health episode ended in transfer to an inpatient facility or death. **Adjustment/Stratification**:

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Level of Analysis: Facility
Setting of Care: Home Health
Type of Measure: Process
Data Source: Electronic Clinical Data
Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

Rationale:

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

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

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

2a. Reliability: **H-6**; **M-16**; **L-0**; **I-0** 2b. Validity: **H-5**; **M-11**; **L-0**; **I-3**

Rationale:

- Reliability testing was conducted at the data element level and the performance measure score.
- Using the beta-binomial model, the measure reliability was high, with the mean and median reliability scores of 0.94 and 0.99 respectively, are above the range considered acceptable (0.70 – 0.80) for drawing inferences about home health agencies.
- The ICC coefficient is 0.94 for agencies with at least 40 valid episodes, suggesting acceptable test-retest reliability.
- Empirical validity testing was done at the level of the performance measure score.

3. Feasibility: H-10; M-9; L-0; I-1

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

Rationale:

- The Committee did not have specific concerns about the feasibility of this measure.
- Data are collected through electronic clinical data and generated or collected by and used by

0538 Pressure Ulcer Prevention and Care
healthcare personnel during the provision of care. • All data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS).
4. Use and Usability: H-8; M-8; L-2; I-1 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • This measure is currently in use in Home Health Compare and the CMS Home Health Quality Initiative. • Therefore, the Committee had no concerns about usability.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-18**; **N-2** **Standing Committee Recommendation for Reserve Status: Y-22; N-2**
6. Public and Member Comment **Post Draft Comments Received:** ○ Comments were in favor of the Committee's decision to recommend this measure for endorsement under reserve status.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

Measures Recommended After Comment Period

0097 Medication Reconciliation Post-Discharge
Submission | **Specifications**
Description: The percentage of discharges for patients 18 years of age and older for whom the discharge medication list was reconciled with the current medication list in the outpatient medical record by a prescribing practitioner, clinical pharmacist or registered nurse. **Numerator Statement**: Medication reconciliation conducted by a prescribing practitioner, clinical pharmacist or registered nurse on or within 30 days of discharge. Medication reconciliation is defined as a type of review in which the discharge medications are reconciled with the most recent medication list in the outpatient medical record. **Denominator Statement**: All discharges from an in-patient setting for patients who are 18 years and older. **Exclusions**: The following exclusions are applicable to the Health Plan Level measure.

0097 Medication Reconciliation Post-Discharge

- Exclude both the initial discharge and the readmission/direct transfer discharge if the readmission/direct transfer discharge occurs after December 1 of the measurement year.
- If the discharge is followed by a readmission or direct transfer to an acute or non-acute facility within the 30-day follow-up period, count only the readmission discharge or the discharge from the facility to which the patient was transferred.

Adjustment/Stratification:

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

Setting of Care: Ambulatory Care : Clinician Office/Clinic

Type of Measure: Process

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

Measure Steward: National Committee for Quality Assurance

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

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

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

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

Rationale:

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

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

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

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

Rationale:

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

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

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

Rationale:

- The data are captured from electronic clinical data that is being used for the CMS Meaningful

0097 Medication Reconciliation Post-Discharge

Use Program and at the health plan level it is obtained through administrative claims and electronic clinical claims.

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

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

Rationale:

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

5. Related and Competing Measures

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

Standing Committee Recommendation for Endorsement: 16-Y, 5-N

- Although the Committee voted relatively highly on each criterion, there was doubt about whether the measure actuality measures what it purports to measure. The Committee stated there is the likelihood that reconciliation is documented but not actually done.
- During the public comment period, the developer submitted additional information and comments were received in support of the measure. The Committee re-voted after the call and recommended the measure for endorsement.

6. Public and Member Comment

Post Draft Comments Received:

- This measure received six comments. These comments expressed support for the measure and recognized its importance in improving patient safety, but there were a few issues raised. There were concerns that the use of CPT II codes would make it challenging for providers to report this measure. Further, the measure excludes professionals that commonly perform reconciliation in primary care settings. One comment stated that the measure should not be used on the provider level as discharge information is often not communicated in a consistent manner. One comment mentioned the measure may be burdensome because it requires chart abstraction and another recommended that nursing home and assisted living patients be removed from the denominator.

Developers Response:

- This measure encourages team based care by allowing medication reconciliation to be conducted by a variety of professionals including any prescribing practitioner, clinical pharmacist or registered nurse. NCQA's advisory panels felt that additional professionals in the office such as a nurse's assistant would not have sufficient clinical knowledge to conduct reconciliation. This approach aligns with successful transitional care models, such as those designed by Eric Colman that suggest medication reconciliation be conducted by a registered

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nurse. The developers recognize the limitation that in some EHRs medication reconciliation may be a checkbox. As with any quality measure collected in the EHR, it is possible providers may document processes they are not conducting. However, given the low performance on this measure the developers do not believe this is a widespread problem. This measure continues to highlight a significant quality gap. The developers also recognize the challenges that providers face in communicating with hospitals about discharge, however they believe measures of care coordination should drive providers and health care systems to improve communication and thus improve care for the patient. The developers also understand the burden this measure places on health plans for those who choose to report through the hybrid methodology, health plans do have the option of reporting this measure administratively through the use of three billing codes. Currently, only 5% of health plans are choosing to report this measure administratively. Furthermore, the provider level measure is restricted to patients who are seen by the provider within 30 days of discharge. Therefore patients who do not have a post-discharge follow-up with their provider are not included in the denominator of the provider level measure.

Committee Response:

- The Committee agreed the developer sufficiently addressed the concerns raised and those voiced in the public comments. However, some members reiterated their concern that the measure does not indicate that actual medications were reconciled in a way that is accurate and correct. Another remaining point of concern is that registered nurses are included as one of the professionals eligible to conduct medication reconciliation. Some members expressed that this task should be completed or authorized by a physician. The Committee re-voted on this measure and recommended the measure for continued endorsement.

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

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

9. Appeals

0531: Patient Safety and Adverse Events Composite (Agency for Healthcare Research and Quality)

Submission | Specifications

Description: N/A
Numerator Statement: Populations at Risk
Denominator Statement: PSI03
See Patient Safety Indicators Appendices:
Appendix A – Operating Room Procedure Codes
Appendix J – Admission Codes for Transfers
See attached excel document for
ICD-9-CM Hemiplegia, paraplegia, or quadriplegia diagnosis codes
ICD-9-CM Spina bifida or anoxic brain damage diagnosis codes
ICD-9-CM Debridement or pedicle graft procedure codes
PSI06
See attached excel document for
ICD-9-CM Chest trauma diagnosis codes

0531: Patient Safety and Adverse Events Composite (Agency for Healthcare Research and Quality)

ICD-9-CM Pleural effusion diagnosis codes
ICD-9-CM Thoracic surgery procedure codes
ICD-9-CM Lung or pleural biopsy procedure codes
ICD-9-CM Diaphragmatic repair procedure codes
ICD-9-CM Cardiac procedure codes
PSI08
See Patient Safety Indicators Appendices:
Appendix G – Trauma Diagnosis Codes
Appendix K – Self-Inflicted Injury Diagnosis Codes
See attached excel document for
ICD-9-CM Hip fracture repair procedure codes
ICD-9-CM Seizure diagnosis codes
ICD-9-CM Syncope diagnosis codes
ICD-9-CM Stroke and occlusion of arteries diagnosis codes
ICD-9-CM Coma diagnosis codes
ICD-9-CM Cardiac arrest diagnosis code
ICD-9-CM Poisoning diagnosis codes
ICD-9-CM Delirium and other psychoses diagnosis codes
ICD-9-CM Anoxic brain injury diagnosis code
ICD-9-CM Metastatic cancer diagnosis codes
ICD-9-CM Lymphoid malignancy diagnosis codes
ICD-9-CM Bone malignancy diagnosis codes
PSI09
ICD-9-CM Coagulation disorder diagnosis codes:
2860 CONG FACTOR VIII DIORD
2861 CONG FACTOR IX DISORDER
2862 CONG FACTOR XI DISORDER
2863 CONG DEF CLOT FACTOR NEC
2864 VON WILLEBRANDS DISEASE
28652 ACQUIRED HEMOPHILIA
28653 ANTIPHOSPHOLIPID ANTIBODY WITH HEMORRHAGIC DISORDER
28659 OT HEM D/T CIRC ANTICOAG
2866 DEFIBRINATION SYNDROME
2867 ACQ COAGUL FACTOR DEFIC
2869 COAGULAT DEFECT NEC NOS
2871 QUALITATIVE PLATELET DEFECTS
28730 PRIMARY THROMBOCYTOPENIA,UNSPECIFIED
28731 IMMUNE THROMBOCYTOPENIC PURPURA
28732 EVANS SYNDROME
28733 CONGENITAL AND HEREDITARY THROMBOCYTOPENIC PURPURA
28739 OTHER PRIMARY THROMBOCYTOPENIA
28741 STTRANSFUSION PURPURA

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

0531: Patient Safety and Adverse Events Composite (Agency for Healthcare Research and Quality)

Level of Analysis: Facility

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

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

Data Source: Hospital/Acute Care Facility

Measure Steward: Agency for Healthcare Research and Quality

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

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

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

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

Rationale:

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

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

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

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

Rationale:

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

0531: Patient Safety and Adverse Events Composite (Agency for Healthcare Research and Quality)

Potentially Preventable Readmissions measure. .The Pearson correlation value, was 0.11 with a p-value of <0.0001.

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

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

Rationale:

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

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

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

Rationale:

- There were concerns about the use of this measure in value-based purchasing, despite the improvements the developer has made, because may not accurately reflect that an actual preventable complication occurred or may focus on preventing measured events that are less clinically important.

- This measure is used to monitor performance in national and regional reporting. It was also developed to enable comparative reporting and quality improvement at the provider or the hospital level.

5. Related and Competing Measures

- Concerns were raised by the Committee that some of the elements of this measure, notably the central line related blood stream infections and post-operative hip fracture, may be better captured in other NQF approved measures rather than using administrative claims data. In addition, this measure is related to NQF 532, which is the pediatric version of the same measure 0347.

Standing Committee Recommendation for Endorsement: **17-Y; 2-N; ~~14-Y;10-N~~**

- Following a review of the comments received and the changes and additional materials submitted by the developer, the Committee voted to recommend the measure.

6. Public and Member Comment

Post Draft Comments Received:

- During the comment period, there were a total of 60 comments submitted on measure 0531 (PSI-90). The majority of comments were supportive, specifically those from individual patients, patient advocate groups, and payers. However, several comments noting concerns with PSI-90 were submitted, primarily by physicians and hospital groups. There were comments specifically around the harmonization of the reporting of central-line associated blood stream infections, which are also reported via NHSN data and endorsed under a separate NQF-endorsed measure. The comment suggested better measure alignment because the NHSN data may be more accurate as it is based on case-report rather than claims data. There were also concerns that some of the events that are captured in administrative claims and reported as adverse events may not be preventable due to limitations in claims data. These data not suggest a cause for the adverse event, only that it was coded in the chart. Other concerns were raised over the validity of the measure, specifically noting that many of the underlying components of PSI-90

may not be valid, and some have high rates of misclassification when the claims data are compared to chart review.

There were also specific concerns about PSI-12: Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (DVT), which is included in the PSI-90 composite. The comment asked the developer to consider excluding trauma patients from "hospital acquired" DVT. The rationale was that trauma patients are at high risk for DVT, even when aggressive preventative measures are taken. In addition, trauma centers are vigilant in the detection of DVT by routinely screening patients. As a result of patients being high-risk and aggressive screening, there are high rates of DVT due to early identification of calf vein thrombosis. This could result in unfairly penalizing trauma centers, as compared to other centers, which do not screen for DVT as aggressively.

Developer Response:

After reviewing the comments, AHRQ is proposing a new title for the measure; removal of one component, PSI 07, of the measure; and one change to the component measure, PSI 12, Perioperative Deep Vein Thrombosis and Pulmonary Embolism.

1. PSI-90 has been modified to not include PSI 07 (Central Venous Catheter-Related Bloodstream Infection Rate) due to the comments and concerns around the NHSN measures which are competing with this component of PSI 90. Users of the AHRQ QI software will now have a choice between using the full version of PSI 90, containing PSI 07, or the modified version of PSI 90, without PSI 07. For the purpose of endorsement considerations, AHRQ recommends that the Committee consider only PSI 90 without the inclusion of PSI 07. In addition, the new version of PSI 90 has been re-weighted appropriately. This directly addresses the comments raised during the comment period. In addition, the developer conducted an analysis of the impact of this they found that it would not negatively impact the reliability of this measure. Additional detail is provided in a detailed memo from the developer (Appendix B).

2) The name of PSI 90 will change. PSI 90, version 6.0, will be changed from Patient Safety Composite for Selected Indicators, to Patient Safety and Adverse Events Composite. The developer stated that this was done in response to comments that raised concerns over the preventability of some of the coded adverse events included in the measure. The developer noted that the name better reflects the fact that some of the component indicators capture adverse events occurring during hospital care, and there is room for discussion and disagreement about the exact percentage of those events that are preventable given current knowledge.

3) The definition of PSI 12 (Perioperative Deep Vein Thrombosis and Pulmonary Embolus) – a component of PSI 90 -- will now exclude patients with any diagnosis of major cranial and spinal trauma from the denominator. While the public comment suggested excluding all trauma patients, the developer reasoned that exclusion specifically of major cranial and spinal trauma was reasonable because it may not be safe for physicians to prescribe thromboprophylaxis in these patients because of the increased risk of bleeding and potential catastrophic consequences of that bleeding. In addition, the developer noted that patients with major cranial and spinal trauma are clustered at major trauma centers. Initial analysis revealed that there would be no changes to the reliability and validity of the measure based upon this change.

Committee Response:

- The Committee agreed the developer's response sufficiently address the concerns raised and those voiced in the public comments. They commended the developers on the great level of effort taken to improve the measure. The Committee discussed the appropriateness of claims data for use in this kind of measure. One member voiced concerns about whether the measure demonstrates an adequate degree of validity. The Committee re-voted on this measure and

0531: Patient Safety and Adverse Events Composite (Agency for Healthcare Research and Quality)
recommended the measure for continued endorsement.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0352 Failure to Rescue In-Hospital Mortality (risk adjusted)
Submission | **Specifications**
Description: Percentage of patients who died with a complications in the hospital. **Numerator Statement**: Patients who died with a complication plus patients who died without documented complications. Death is defined as death in the hospital. All patients in an FTR analysis have developed a complication (by definition). Complication patient has at least one of the complications defined in Appendix B (see attachment and website http://www.research.chop.edu/programs/cor/node/26). Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission. Comorbidities are defined in Appendix C (see attachment and website http://www.research.chop.edu/programs/cor/node/26) using secondary ICD9 diagnosis codes of the current admission and primary or secondary ICD9 diagnosis codes of previous admission within 90 days of the admission date of the current admission. *When Physician Part B is available, the definition of complications and comorbidities are augmented to include CPT codes. **Denominator Statement**: General Surgery, Orthopedic and Vascular patients in specific DRGs with complications plus patients in specific General Surgery, Orthopedic and Vascular DRGs who died in the hospital without complications. Inclusions: adult patients admitted for one of the procedures in the General Surgery, Orthopedic or Vascular DRGs (see attachment and Appendix A http://www.research.chop.edu/programs/cor/node/26). **Exclusions**: Patients over age 90, under age 18. **Adjustment/Stratification**: **Level of Analysis:** Population : County or City, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional, Population : State **Setting of Care:** Hospital/Acute Care Facility **Type of Measure**: Outcome **Data Source**: Administrative claims **Measure Steward**: The Children's Hospital of Philadelphia
STANDING COMMITTEE MEETING 06/17/2015-06/18/2015 **1. Importance to Measure and Report: The measure meets the Importance criteria** (1a. Evidence, 1b. Performance Gap) 1a. Evidence: **19-Y; 1-N;** 1b. Performance Gap: **3-H; 13-M; 2-L; 2-I;** Rationale:

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

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

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

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

2a. Reliability: **2-H; 13-M; 1-L; 2-I** 2b. Validity: **2-H; 16-M; 2-L; 2-I**

Rationale:

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

3. Feasibility 7-H; 16-M; 2-L

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

Rationale:

- Data are collected through administrative claims and coded by someone other than the person obtaining the original information.
- All data elements are in defined fields in electronic claims.

4. Use and Usability: 5-H; 11-M; 3-L; 1-I

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

Rationale:

- The developer provided several papers that show how the measure can be and is used within organizations although it is not currently used in public reporting or accountability programs.

5. Related and Competing Measures

- This measure is related to 353: Failure to Rescue 30-Day Mortality (risk adjusted) (The Children's Hospital of Philadelphia).
- This measure is potentially competing with 0351: Death among surgical inpatients with serious, treatable complications (PSI 4) (AHRQ), but, as that measure is not under review in this project and a decision has not been made on this measure, the related/competing issue was not discussed.

Standing Committee Recommendation for Endorsement: 16-Y; 4-N

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- During the public comment period, the developer submitted additional information. Following

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

a review and discussion, the Committee voted to recommend the measure.

6. Public and Member Comment

Post Draft Comments Received:

- This measure received four comments. Each comment was in favor of the Committee's decision to defer the measure until more information is provided. One comment stated that the measure should not be endorsed because, for provider level measurement, the values would be very low. Another comment stated that failure to rescue does not always result in death and the measure may be too general.

Developer Response:

- The developers have shown in the Measure Testing form that their risk adjustment models are valid and reliable for the index population. It must be remembered that (1) surgeons did decide to perform surgery; (2) they are asking whether the patient survives a complication, NOT whether they develop a complication, and (3) the group of patients who develop a complication are far sicker than the general population of patients undergoing surgery. The developers will consider incorporating other data elements in future versions of the FTR measure, as they do when new data become available from literature or coding systems, but considering the strong reliability of the measure and predictive ability of the current risk-adjustment model, the developers do not believe these minor changes would merit changing the entire algorithm at this point, and they have no evidence that the changes suggested would in any substantive way change the ranking or rating of hospitals.

Committee Response:

- The Committee agreed the developer sufficiently addressed the concerns raised and those of voiced in the public comments. Overall, the Committee agreed the evidence is strong and demonstrated a performance gap. There were questions about the types of test-retest that was used for reliability and the dataset used for the analysis. There were also concerns that the developer used a Medicare dataset for validity testing while the measure applies to individuals 18-89 years of age. The developer noted that those who use this measure will need to risk adjust for a younger population. The developer stated that the measure utilizes data from Medicare claims which makes it feasible to implement and the Committee agreed. One member of the Committee expressed a concern that the measure was not in use. The Committee reviewed the response submitted by the developer , voted on this measure and recommended the measure for continued endorsement.

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

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

9. Appeals

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

Submission | **Specifications**

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

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

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

Complicated patient has at least one of the complications defined in Appendix B (see attachment and

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

website http://www.research.chop.edu/programs/cor/node/26). Complications are defined using the secondary ICD9 diagnosis and procedure codes and the DRG code of the current admission.

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

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

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

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

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

Exclusions: Patients over age 90, under age 18.

Adjustment/Stratification:

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

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: The Children's Hospital of Philadelphia

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

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

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

1a. Evidence: Evidence: ~~**17-Y; 1-7**~~ **18-Y; 2-N**; 1b. Performance Gap: **7-H; 10-M; 2-L; 2-I**

-Rationale:

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

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

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

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

Rationale:

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

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

- Validity testing was conducted via systematic assessment of face validity of the performance measure score and provides results of a correlation analysis.
- The developer did not provide the list of characteristics included in the regression model.
- The Committee asked the developer to provide the missing information as well as address their other concerns.

3. Feasibility: 5-H; 11-M; 3-L; 1-I

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

Rationale:

- This measure is claims based that is ideally suited for Medicare claims and for other claims data. The measure can also be populated using in-hospital data.

4. Use and Usability: 6-H; 9-M; 4-L; 1-I

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

Rationale:

- The measure can be used in public reporting or accountability programs but it is not currently used in either.

5. Related and Competing Measures

- This measure is related to 0352: Failure to Rescue in-Hospital Mortality (risk adjusted) (The Children's Hospital of Philadelphia).
- This measure is potentially competing with 0351: Death among surgical inpatients with serious, treatable complications (PSI 4) (AHRQ), but, as that measure is not under review in this project and a decision has not been made on this measure, the related/competing issue was not discussed.

Standing Committee Recommendation for Endorsement: **16-Y; 4-N**

- The developers submitted additional information as requested, during the public comment period. Following their review of this information, the Committee voted to recommend the measure.

6. Public and Member Comment

Post Draft Comments Received:

- This measure received two comments. They were in favor of the Committee's decision to defer the measure until more information is provided. One comment stated that current risk methodology does not adequately account for risk of patients with cancer.

Developer Response:

- The developers have shown in the Measure Testing form that the risk adjustment models are valid and reliable for the index population. The developers note that (1) surgeons did decide to perform surgery; (2) they are asking whether the patient survives a complication, NOT whether they develop a complication and (3) the group of patients who develop a complication are far sicker than the general population of patients undergoing surgery. The developers will consider incorporating other data elements in future versions of the FTR measure, as they do when new

0353 Failure to Rescue 30-Day Mortality (risk adjusted)
data become available from literature or coding systems, but, considering the strong reliability of the measure and predictive ability of the current risk-adjustment model, they do not believe these minor changes would merit changing the entire algorithm at this point, and they have no evidence that the changes suggested would in any substantive way change the ranking or rating of hospitals. **Committee Response:** • The Committee agreed the developer sufficiently addressed the concerns raised and those of voiced in the public comments. There is a great deal of similarity between this measure and 0352. Many of the questions that arose during the discussion of 0352 covered concerns about this measure. There was one question related to the split-half reliability testing. One Committee member requested clarification on whether the measure was tested on one large sample or multiple smaller samples. The developer clarified that split-half testing was done at the hospital level. Another Committee member requested that patients who are over the age of 90 be included in the denominator because over 90% of patients in hospitals are over the age of 85 (as cited in a recent report). The Committee reviewed the response submitted by the developer , voted on this measure and recommended the measure for continued endorsement.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9.Appeals

Measures Not Recommended

2729 Timely Evaluation of High-Risk Individuals in the Emergency Department (ED)
Submission | Specifications
Description: Median time from ED arrival to qualified provider evaluation for individuals triaged with a severity level of "immediate" or "emergent" on a 5-level triage system. **Numerator Statement**: The proposed measure is a continuous variable measure. Continuous variable measures do not have a numerator statement. In this section we include the measure observation statement. Median time difference (in minutes) from ED arrival to qualified provider contact for emergency department patients triaged at the two highest-risk levels based on a 5-level triage system (e.g., "immediate" or "emergent"). **Denominator Statement**: The proposed measure is a continuous variable measure. Continuous variable measures do not have a denominator statement. In this section we include the measure population statement. All emergency department encounters for which individuals are triaged at the two highest-risk levels based on a 5-level triage system (e.g. "immediate" or "emergent"). **Exclusions**: None **Adjustment/Stratification**: **Level of Analysis:** Facility **Setting of Care:** Hospital/Acute Care Facility **Type of Measure**: Process

2729 Timely Evaluation of High-Risk Individuals in the Emergency Department (ED)

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

Measure Steward: Centers for Medicare & Medicaid Services

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

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

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

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

Rationale:

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

2. Scientific Acceptability of Measure Properties: The measure does not meet the Scientific Acceptability criteria

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

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

Rationale:

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

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

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

Rationale:

- N/A

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

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

Rationale:

2729 Timely Evaluation of High-Risk Individuals in the Emergency Department (ED)
• N/A
5. Related and Competing Measures • N/A
Standing Committee Recommendation for Endorsement: Y-X; N-X
6. Public and Member Comment • This measure received four comments agreeing with the Committee's decision not to recommend it.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

Ad Hoc Reviews

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

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

Measure Steward: Centers for Disease Control and Prevention

STANDING COMMITTEE MEETING [07/09/2015]

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

Rationale:

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received six comments. Most comments were in support of the Committee's approval of the changes made. Another comment stressed that the measure should not be applied to the spinal cord injury (SCI) population, there needs to be meaningful monitoring of unintended adverse consequences, and the Committee should align its decision with a previous decision on a 2010 Nursing Home measure, in which the Committee decided that patients with neurogenic bladder should be exempt due to concerns over their safety.

Developer Response:

- These are important concerns about indiscriminate removal of indwelling urinary catheters from patients with spinal cord injuries (SCIs) treated in non-specialty hospitals. While the frequency and extent of this problem are not known, the developers agree that concerted efforts are warranted to close performance gaps and protect at-risk SCI patients. To that end, in January 2015 CDC proposed in a letter to the President of the American Spinal Cord Injury Association (ASIA) a collaborative ASIA-CDC initiative aimed at promoting safe and appropriate use of indwelling urinary catheters in the SCI patient population, particularly at non-specialty hospitals. That offer still stands and could include joint development and testing of a clinical quality measure of bladder function management of SCI patients. The CDC Healthcare Infection Control Practices Advisory Committee (HICPAC) Guideline for Prevention of Catheter-associated Urinary Tract Infections (CAUTI) includes a recommendation for use of intermittent urinary catheterization preferentially over indwelling urinary catheters in patients with bladder

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

emptying dysfunction. This specific recommendation refers to patients with impaired bladder function, not all of whom are SCI patients, and the recommendation should be placed in the context in which it is presented in the guidelines, namely that practitioners should "consider using alternatives to indwelling urethral catheterization in selected patients when appropriate." The HICPAC guideline specifically recommends consideration of alternatives to chronic indwelling catheters, such as intermittent catheterization, in SCI patients, but the guidelines do not strongly recommend use of alternatives for these patients. Lastly, this measure is intended to be used in inpatient locations and facilities as it uses urinary catheter days as the denominator for calculating the standardized infection ratio. The data generated by the measurement may be useful by health plans in their assessment of quality of care.

Committee Response:

- The Committee agrees with the developer response and maintains their decision to recommend this measure for continued endorsement.

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

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

9. Appeals

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

Submission | Specifications

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

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

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

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

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

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

3. Peripheral intravenous lines are excluded as CLs.

Adjustment/Stratification:

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

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

Type of Measure: Outcome

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

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

Measure Steward: Centers for Disease Control and Prevention

STANDING COMMITTEE MEETING [07/09/2015]

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

Rationale:

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

6. Public and Member Comment

Post Draft Comments Received:

- Comments were in favor of the Committee's decision to recommend the measure for continued endorsement.

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

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

9. Appeals

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

6. Public and Member Comment

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

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

9. Appeals

0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)

Submission | **Specifications**

Description: Accidental punctures or lacerations (secondary diagnosis) during a procedure of the abdomen or pelvis per 1,000 discharges for patients ages 18 years and older that require a second

0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)

abdominopelvic operation one or more days after the index procedure. Excludes cases with accidental puncture or laceration as a principal diagnosis, cases with accidental puncture or laceration as a secondary diagnosis that is present on admission and obstetric cases.

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

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

Exclusions: Exclude cases:

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

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

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

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

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

<u>Rationale</u>:

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

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

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

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

<u>Rationale</u>:

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

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

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

<u>Rationale</u>:

0345 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)

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

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

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

Rationale:

- There were no concerns for this measure in terms of usability and use. This measure is also one of the components of PSI 90, which was also reviewed during this Standing Committee meeting.

5. Related and Competing Measures

- No related or competing measures noted.

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

6. Public and Member Comment

Post Draft Comments Received:

- This measure received two comments. One comment suggested that PSI15 should not be recorded if the "injury" was minor and had no subsequent consequence and that it should not be recorded if the laceration or puncture was due to the following:
  - Infection/inflammation
  - Cancer
  - Adhesions
  - Radiation damage

Developer Response:

- It is true that cancer patients may be at higher risk of PSI 15 (Unrecognized Accidental Abdominopelvic Puncture or Laceration) than patients without cancer, but this difference is accounted for in AHRQ's risk-adjustment model (http://qualityindicators.ahrq.gov/Downloads/Modules/PSI/V50/Parameter_Estimates_PSI_50pdf). For example, MDC 17 (Myeloproliferative Diseases and Disorders and Poorly Differentiated Neoplasms) is associated with 2.94 times higher adjusted odds of PSI 15. Some MS DRGs within MDC 17, such as 820-822 (MDRG 1707, Leukemia and Lymphoma with Major OR Procedure), 826-828 (MDRG 1709, Myeloproliferative Disorder or Poorly Differentiated Neoplasm with Major OR Procedure), 303 (MDRG 1103, Kidney and Ureter Procedures for Neoplasm), and 357 (MDRG 1302, Uterine and Adnexa Procedure for Ovarian or Adnexal Malignancy) are associated with even higher adjusted odds of 66-144. This risk-adjustment model has very high discrimination of c=0.921, indicating that it assigns a higher probability of PSI 15 to patients who actually experienced the event (among randomly selected pairs) 92.1% of the time.
- The comment is related to Version 5 specification of PSI 15, when the Version 6 specification is now under review by NQF. Inconsequential or "minor" events are no longer included, because a second operation (at least one day after the first operation) is now required to trigger the numerator of PSI 15. The adjective "unrecognized" is proposed for the title of PSI 15 because return to the operating room for repair of an "accidental puncture or laceration" after abdominopelvic surgery implies that the injury was not recognized when it occurred (or else it would have been repaired at that time), or that the initial repair failed. Although AHRQ has not implemented "automatic exclusions" for infection, inflammation, adhesions, or radiation damage, most of these factors are included in the risk-adjustment model. In addition, the

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American College of Surgeons' bulletin highlights that "according to explicit guidance from the [American Hospital Association's] Coding Clinic for ICD-9-CM (Second Quarter, 2007 and First Quarter, 2010), 'expected' enterotomies are not coded with code 998.2. By definition, this code is limited to 'accidental' punctures and lacerations that are not 'intrinsic' or 'inherent' in a major procedure. Although (this) guidance is straightforward, the ACS has received comments from Fellows indicating that some hospital quality reporting departments continue to misunderstand how to correctly report PSI-15. This column provides more background and coding guidance to assist surgeons in working with their hospital staff on reporting PSI-15."" AHRQ supports efforts of this type to improve coding practice and promote dialogue between surgeons and coding professionals. For another example of these efforts, see Utter GH et al. in JAMA Surg. 2015 May; 150(5):388-9. **Committee Response:** ○ The Committee agrees with the developer response and maintains their decision to recommend this measure for continued endorsement.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

Measures Withdrawn from Consideration

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

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