



October 18, 2012

TO: NQF Members
FR: NQF Staff
RE: Voting Draft Report: *Patient Safety – Complications Endorsement Maintenance: Phase II*
DA: October 18, 2012

Background

Medical errors and unsafe care kill tens of thousands of Americans each year. NQF's National Voluntary Consensus Standards for the Reporting of Healthcare-Associated Infection (HAI) Data reports that "an estimated 2 million HAIs alone occur each year in the United States, accounting for an estimated 90,000 deaths and adding \$4.5 billion to \$5.7 billion in healthcare costs."¹ The Centers for Disease Control and Prevention (CDC) estimate that HAIs cost U.S. hospitals at least 5.7 billion per year, and potentially up to \$31.5 billion.²

Falls and pressure ulcers are also high cost and high volume adverse events. Falls are the leading cause of injury-related death for individuals 65 and older, and it is estimated that patient falls among the elderly will cost over \$30 billion by 2020.³ In 2007, there were 257,412 reported cases of Medicare patients who had a pressure ulcer as a secondary diagnosis during hospitalization—these cases had an average charge of \$43,180.⁵ In addition, beginning October 1, 2008, Medicare no longer reimburses for either the extra cost of treating Category/ Stage III and IV pressure ulcers that occur while the patient is in the hospital or the extra cost of treatment for serious injuries

¹ NQF, *National Voluntary Consensus Standards for the Reporting of Healthcare-Associated Infection Data: A Consensus Report*, Washington, DC: NQF; 2008.

² Scott RD, *The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospitals and the Benefits of Prevention*, Division of Healthcare Quality Promotion, National Center for Preparedness, Detection, and Control of Infectious Diseases; Coordinating Center for Infectious Diseases, Centers for Disease Control and Prevention; March 2009.

³ CDC, 2006: Centers for Disease Control and Prevention. National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Available at <http://www.cms.hhs.gov/hospitalacqcond/>. Last accessed October 30, 2009.

⁴ Ulrich R., Zimring C. *The Role of the Physical Environment in the Hospital of the 21st Century: A Once-in-a-Lifetime Opportunity*. Concord, CA: The Center for Health Design; 2004 Sept.

⁵ Armstrong DG, Ayello EA, Capitulo KL, et al. New opportunities to improve pressure ulcer prevention and treatment: implications of the CMS inpatient hospital care present on admission indicators/hospital-acquired conditions policy -- a consensus paper from the International Expert Wound Care Advisory Panel. *Adv Skin Wound Care* 2008; 21:469-470, 472-478.

resulting from falls. HAIs, falls, and pressure ulcers, while occurring in relatively high numbers, are only a few of the many types of patient safety-related events that occur in healthcare settings.

In Phase 2 of this project, the Steering Committee reviewed NQF-endorsed® patient safety measures before June 2009 and sought new performance measures that could be used for accountability and public reporting on falls, pressure ulcers and healthcare associated infections. A 26-member Steering Committee reviewed 21 measures, and recommended 14 of these measures for endorsement. Public and member commenting took place from July 30-August 28, 2012.

Comments and Revised Voting Report

NQF received 35 comments from five NQF members. The comments, with their final responses, are posted in the [project page](#).

Revisions to the draft report and the accompanying measure specifications are identified as redlined changes. (NOTE: Typographical errors and grammatical changes have not been red-lined to assist in reading.).

Comments and their Disposition

The Steering Committee reviewed the comments and focused its discussion on those specific measures and topic areas with the most significant and recurring issues that arose from the comments. Comments about specific measure specifications and rationale also were forwarded to the measure developers, who were invited to respond.

Major Themes

Four major themes were identified in the comments, as follows:

1. Request for reconsideration of one measure not recommended: #0504: Pediatric weight documented in kilograms
2. Need for measures that are meaningful to consumers
3. Additional areas for measure development
4. Suggested revisions of measure specifications

Theme 1: Request for reconsideration of one measure not recommended: #0504: Pediatric weight documented in kilograms

Description: A comment by the Emergency Nurses Association (ENA) suggests that this measure should be reconsidered because of the importance of reducing medication errors in children due to incorrect weight. It cites additional evidence and notes that the use of EHRs may not eliminate errors related to pediatric dosing, which supports the need for a quality measure.

Action Taken: The Committee noted the significance of pediatric weight documented in kilograms but indicated that the developer needed to present data linking the failure to measure weight in kilograms to adverse events or

demonstrate that measuring weight for pediatric patients mitigates adverse events. After a re-vote, the measure remained not recommended for endorsement, but the Committee encouraged the developer to resubmit it in the future after additional evidence had been generated linking the measure to outcomes.

Theme 2- Need for measures that are meaningful to consumers

Description: There were seven comments suggesting that certain measures would be more meaningful to consumers if their approaches to public reporting were altered. The comments are listed below, along with the developers' responses, if provided. Developer responses are also listed in the comment spreadsheet.

Usefulness to Consumer:

- 0141: Patient Fall Rate
- 0202: Falls with injury

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

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

Action Taken: The Committee was satisfied with the developer's response, and reaffirmed its recommendations of measure 0141 and 0202 for endorsement as specified. However, the Committee also recognized the value of making measures more meaningful to consumers and acknowledged the importance of public understanding.

Risk Adjustment:

- 0347: Death Rate in Low-Mortality Diagnosis Related Groups (PSI 2)

The measure's hierarchical risk adjustment may remove important variation from the results and may complicate consumer's ability to distinguish between providers.

Developer response (AHRQ): The table below (Table 1) provides information on the ability of measure #0347 to reliably discriminate based on provider performance:

Table 1: Discrimination in Provider Performance, 2008

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

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

Action Taken: The Committee was satisfied with the developer’s response, and reaffirmed its recommendation of measure 0347 as specified.

Measuring Providers:

- 0538: Pressure Ulcer Prevention and Care

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

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

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

Approach to Reporting:

- 1716: National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia Outcome Measure
- 1717: National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure

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

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

Action Taken: The Committee was satisfied with the developer's response and reaffirmed its recommendation of measures 1716 and 1717 as specified. However, they suggested the developer consider reporting actual risk-adjusted rates of infection per admission in the future. The Committee also recognized the importance of measures that are meaningful to consumers and it was noted as an area of future measure development in the draft report.

Theme 3: Additional areas for measure development

Description: There were 11 comments noting that measures recommended for endorsement should include additional settings and proposing four areas of future measure development.

Measurement Gaps Identified:

- Outcome measures should examine social factors in the prevention and treatment of falls, focusing on community level measurement.
- Falls across the care continuum should be addressed. These metrics should include patient assessment, plan of care, intervention, and outcomes, and should take into account care across various settings, such as inpatient, outpatient, ambulatory surgical centers, and home health.
- Further measures are needed that focus on complications linked to surgical site infections (including cesarean sections) and outcomes.
- Measures are needed that are easy to understand and meaningful to consumers

Action Taken: The Committee reaffirmed the importance of the measures recommended for endorsement, while also supporting the suggestions for future measure development. The report was updated to include these gaps.

Theme 4: Suggested revisions of measure specifications

Description: The following comments addressing specifications were forwarded to the developers for response. The developers' responses are listed in the comment spreadsheet.

- 0035: Fall Risk Management
The measure should involve an all-or-none principle instead of incorporating individual numerators and denominators.

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

Action Taken: The Committee was satisfied with the developer's response, and reaffirmed its recommendation of measure 0035 as specified.

- 0101: Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls
The measure may not result in an improvement in patient outcomes and may become a "checkbox" measure. Patient-reported data would be a better source of performance information.

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

Action Taken: The Committee agreed that patient-reported data is an important element of falls-related quality measurement. However, provider data is also a key component, and helps to ensure a fuller picture of falls prevention activities and understanding by the patient. The Committee reaffirmed its recommendation of measure 0101 for endorsement.

- 0202: Falls with injury
This measure does not take into account that studies have demonstrated patients in rehabilitation settings may have higher fall rates due to cognitive impairment and lower staffing ratios. Additionally, collecting information on sub-specialty analysis for patient populations (such as stroke, brain injury, etc) may be useful.

Developer response (ANA): Thank you for your comments. Using NDNQI data, we have found the inpatient rehabilitation unit (N = 514 units) injury fall rates to be: mean (SD) = 1.91 (1.36); 25th percentile = 0.00; median = 0.93; and 75th percentile = 1.69. NDNQI provides member hospitals with quarterly national comparison data by unit type and several hospital characteristics. Because

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

Action Taken: The Committee recognized that the measure stratifies results based on specialty units, including rehabilitation and accepted that the developer could not further differentiate by complexity of the patient diagnosis within the unit. They reaffirmed their recommendation of measure 0202 for endorsement.

- 0204: Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)
- 0205: Nursing Hours per Patient Day

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

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

Action Taken: The Committee requested in future versions of the measure the developer continue updating the specifications, data permitting, to include additional variations in staffing ratios and collect data on specialty certified nurses. They reaffirmed their recommendation of measures 0204 and 0205 for endorsement.

- 0266: Patient Fall

The measure could be expanded beyond ambulatory care, to include inpatient and outpatient settings.

Developer response (ASC Quality Collaboration): We thank the commenter for their support of capturing patient falls. The mission of the ASC Quality Collaboration is to develop quality measures appropriate to the outpatient surgical setting. The NQF portfolio includes measures that examine falls in other care settings.

Action Taken: The Committee was satisfied with the developer's response, and reaffirmed its recommendation of measure 0266 as specified. Addressing falls across settings was noted as an area of measure gaps.

- 0537: Multifactor Fall Risk Assessment Conducted in Patients 65 and Older

The measure could be expanded beyond the 65 and older population, to include patients 18 and over.

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

Action Taken: The Steering Committee agreed that a measure applicable to all ages would be preferable; the Committee supported the developer's proposed effort to expand the measure before its next endorsement review.

NQF Member Voting

Information for electronic voting has been sent to NQF Member organization primary contacts. Accompanying comments must be submitted via the online voting tool.

Please note that voting concludes on November 1 at 6:00 pm ET – no exceptions