NATIONAL QUALITY FORUM

TO: NQF Members

FR: NQF Staff

RE: Voting Draft Report *Pulmonary and Critical Care Consensus Standards Endorsement Maintenance*

DA: June 26, 2012

BACKGROUND

NQF has previously endorsed consensus standards to evaluate the quality of care for pulmonary and critical care. This project seeks to identify and endorse performance measures that could be used in accountability and public reporting in the following topic areas for adults and children in all settings of care: asthma; chronic obstructive pulmonary disease (COPD); pneumonia; dyspnea; pneumonia; and intensive/critical care.

This report recommends continued endorsement of 17 measures and endorsement of 5 newly submitted measures. A 21-member Steering Committee representing a range of stakeholder perspectives was appointed to evaluate 8 new measures and 28 previously endorsed measures for maintenance review. The draft document, *National Voluntary Consensus Standards: Pulmonary and Critical Care Endorsement Maintenance* is posted on the NQF website along with the measure submission forms. On June 5, 2012, the 30-day comment period concluded for the 25 measures recommended in the draft report.

Comments and Revised Voting Report

NQF received 139 comments from 20 member organizations:

Consumers – 1	Professional – 8
Purchasers – 2	Health Plans – 2
Providers – 2	QMRI – 1
Supplier and Industry – 4	Public & Community Health -0

A table of complete comments submitted during the comment period, with the responses to each comment and the actions taken by the Steering Committee, is posted to the Pulmonary Endorsement Maintenance project page on the NQF website, along with the measure submission forms.

The Steering Committee reviewed and responded to all comments received. Revisions to the draft report and the accompanying measure specifications are identified as red-lined changes. (Note: Typographical errors and grammatical changes have not been red-lined, to assist in reading.)

Several comments have prompted actions that will require several weeks to resolve. To accommodate these issues, primarily addressing harmonization and exclusions for planned readmissions, the Pulmonary and Critical Care measures an addendum to this report will be available for NQF member voting in several weeks on the following three measures:

- ***0356: PN3a--Blood Cultures Performed Within 24 Hours Prior to or 24 Hours After Hospital Arrival for Patients Who Were Transferred or Admitted to the ICU Within 24 Hours of Hospital Arrival***
- ***0506 Thirty-day all-cause risk standardized readmission rate following pneumonia hospitalizations***
- ***1891 Thirty-day all-cause risk standardized readmission rate following COPD hospitalizations***

COMMENTS AND THEIR DISPOSITION

In addition to many comments that support the recommendations of the Steering Committee, comments were received regarding:

1. Parsimony
2. Lack of Support for Recommended Measures
3. Requests for Reconsideration of Measures not Recommended
4. Related and Competing Measures
5. Outcome measures
6. Questions on specifications or coding
7. Reserve status
8. Various measure-specific comments that may warrant Committee consideration

Theme 1- Parsimony

Several NQF members noted that "consumers and purchasers strive for parsimony in measurement because an abundance of measures present an unnecessary burden to the health care system. The pulmonary measures currently undergoing the maintenance review and initial endorsement processes unnecessarily overlap in their measure focus and target population, and are overly reliant on process measures."

Committee Response: NQF's portfolio of measures for pulmonary and critical care includes eight additional measures that are not currently under maintenance review. Appendix D of the draft report lists all the measures in the portfolio. Of those eight measures, six are outcome measures including measures of ED visits for asthma patients, function status and quality of life for COPD patients in pulmonary rehabilitation programs, mortality and length of stay measures for the adult ICU and potentially preventable complications for pneumonia patients. Overall there are a significant number of outcome measures in the pulmonary and critical care portfolio,

Addressing whether the measures should continue to be endorsed with the goal of a more parsimonious set for these conditions was discussed by the Committee and the related and competing measures are discussed in Theme 4.

Theme 2- Lack of Support for Recommended Measures

Comments indicated lack of support for several recommended measures:

- ***0356: PN3a--Blood Cultures Performed Within 24 Hours Prior to or 24 Hours After Hospital Arrival for Patients Who Were Transferred or Admitted to the ICU Within 24 Hours of Hospital Arrival***

Comments from APIC, SCCM and ACEP indicated lack of support for this measure, citing lack of any high level evidence that this process measure is directly linked to improved patient outcomes for pneumonia patients; the measure does not state that blood cultures should be obtained before the initiation of treatment; and the measure may create an unnecessary distraction from the delivery of more important care that needs to be delivered in the ED or ICU settings for not supporting this measure.

ACTION TAKEN: After reviewing the comments and additional discussion with the measure developer, the Committee decided to reconsider their recommendation of the measure. The Committee will review the evidence that the process will improve outcomes again and then re-vote on the measure. This measure will be voted by the NQF membership on in the second group of measures.

Multiple comments were received on three pneumonia severity assessment measures:

1895: Assessment of Mental Status for Community-Acquired Bacterial Pneumonia

0232: Vital Signs for Community-Acquired Bacterial Pneumonia

0233: Assessment of Oxygen Saturation for Community-Acquired Bacterial Pneumonia for endorsement ***(not recommended)***

ACP questioned why mental status was selected as a specific element of pneumonia severity assessment as a measure, thereby suggesting this individual item is more important than a more comprehensive assessment utilizing a validated score. Other comments indicate that mental status and vital signs are very basic expectations of care and questions whether there is really a gap in these care processes. These factors should become part of composite measure that includes all elements of assessment by the physician and hospital. Another comment disagreed with not recommending measure 0233 because there is widespread evidence that the degree of O2 saturation influences morbidity and mortality and determination of whether a patient is hospitalized or admitted to the ICU.

ACTION TAKEN: After reviewing the comments, the Committee agreed that a composite measure would be preferable to individual measures. In the absence of a composite measure to recommend at this time, the Committee agreed to maintain their current recommendations, but indicated that at the next maintenance review individual measures should not be endorsed. The Committee also noted that the data on the opportunity for improvement for these measures was very limited and much better data is needed to understand the gap.

Theme 3- Requests for Reconsideration of Measures Not Recommended

Comments requested reconsideration of three measures:

- ***0338 CAC-3 Home management plan of care (HMPC) document given to patient /caregiver***

The comment suggests the measure should be reconsidered because it is important for care coordination efforts and there is a lack of quality measures addressing the high-priority area in the current NQF measures portfolio.

Committee Response: This measure fails to meet the NQF criteria for evidence. The Committee noted the recent publication in JAMA by Morse in October 5, 2011 that found "Among children admitted to pediatric hospitals for asthma, there was high hospital-level compliance with CAC-1 and CAC-2 quality measures and moderate compliance with the CAC-3 measure but no association between CAC-3 compliance and subsequent ED visits and asthma-related readmissions". http://jama.ama-assn.org/content/306/13/1454.abstract

- ***0549 Pharmacotherapy management of COPD exacerbation (PCE)***

The developer requested reconsideration of this measure because they believe that the Committee discussed issues outside of the scope of the measure evaluation sub-criteria. For example, during the discussion of Importance, the SC discussion focused exclusively on the sub-criteria of validity with no further discussion of this measure's high impact, performance gap, and evidence.

Summary of Previous Committee Discussion: The Committee rated the sub-criteria for Importance high in all areas by large majorities and so the measure easily passed the Importance criterion despite questions of why there had been no improvement in performance over 3 years of data. The issues of concern to the Committee centered on the validity of the critical data elements of the numerator. The measure submission information did not include empiric validity testing of the numerator data elements or the measure score. Scientific acceptability is a must pass criterion and it was not further evaluated.

ACTION TAKEN: After reviewing the developer's letter, the Committee agreed that they had given a fair evaluation of the measure, as well as reconsideration following the in-person meeting. When the developer offered to provided recently discovered testing data from 2005 on the Committee call on June 21st, the Committee agreed it was too late in the process to accept additional information that could have been provided in the submission or at previous meetings and conference calls. The Committee encourages the developer to re-submit the measure at the next opportunity.

- ***0341 PICU Pain Assessment on Admissions***
- ***0342 PICU Periodic Pain Assessment***

The Children's Hospital Association requests reconsideration of these measures because there are very few endorsed measures available for pediatric inpatient care and these measures were included in the proposed rule for Stage 2 of Meaningful Use.

Committee Response: The Committee first recommended that the measures be combined as periodic assessment can easily include the first assessment on admission. On further evaluation of the measures the Committee found that there was no testing data or information addressing reliability or validity for the measure and therefore does not meet NQF's criteria for Scientific Acceptability.

Theme 4- Related and Competing Measures

Several commenters noted the number of overlapping measures recommended for asthma medication management and recommend reducing the number to achieve parsimony:

0036 Use of appropriate medications for people with asthma

0047 Asthma: Pharmacologic Therapy for Persistent Asthma

0548 Suboptimal Asthma Control (SAC) and Absence of Controller Therapy (ACT)

1799 Medication Management for People with Asthma (MMA)

1800 Asthma Medication Ratio (AMR)

Comments noted that neither 0036 nor 0047 reflect improvement or decline in the patient's condition, nor do they track how well asthma is managed over time; a single prescription is a very basic standard of care and more robust measures are indicated to assess control that is related to improved outcomes; and preference for medication dispensation (0036) rather than prescription (0047) though other commenters prefer prescribed.. Measures 1799 and 1800 are potentially more meaningful to consumers because they include a care management component and therefore a stronger link to improved outcomes. Some commenters questioned the evidence for the 50% and 75% thresholds in measure 1799 which seem arbitrary. Additionally, one commenter noted that an MPR of 0.50 for measure 1800 seems arbitrary though another commenter reported that a panel of experts from the ACAAI and AAAAI Joint Task Force, documented the correlation between a ratio > 0.5 and lower Emergency Department and Hospitalization rates for asthma The ratio measure was most discriminating if a denominator definition of one or more medical claims with a diagnosis of asthma plus 4 or more asthma medication dispensing events during the year prior to measurement was used. (Schatz M; et al Ann Allergy Asthma Immunol. 2009)

The developers for measures 0036 and 0047 submitted a plan for harmonization pending the approval of their respective measure development panels.

ACTION TAKEN:

- After reviewing the comments, particularly regarding parsimony, the Committee did not change their recommendations of the five asthma measures.
- The Committee recommended that full harmonization of measures 0036 and 0047 should occur by the next annual update to continue endorsement.

Comments supported harmonization of two measures for spirometry in COPD patients:

0091: COPD: spirometry evaluation

0577: Use of Spirometry Testing in the Assessment and Diagnosis of COPD

The developers for measures 0091 and 0577 submitted a plan for harmonization pending the approval of their respective measure development panels.

ACTION TAKEN: The Committee recommended that full harmonization of measures 0091 and 0577 should occur by the next annual update to continue endorsement.

Theme 5 - Outcome measures

Multiple comments from the American Hospital Association addressed several issues pertaining to the four outcome measures from CMS/Yale:

0506 Thirty-day all-cause risk standardized readmission rate following pneumonia hospitalizations

0468 Thirty-day all-cause risk standardized mortality rate following pneumonia hospitalizations

1891 Thirty-day all-cause risk standardized readmission rate following COPD hospitalizations

1893 Thirty-day all-cause risk standardized mortality rate following COPD hospitalizations

AHA urges the Committee to ask the developer to respond to the following issues:

- Failure to adjust for factors beyond the hospital's control such as patient characteristics, extreme circumstances, patient compliance and quality of post-acute care.
- Reliability – A recent CMS study required by the Accountable Care Act "shows the claims-based measures are unreliable." Additional reliability analyses are provided by KNG showing similar results.
- Harmonization with the recently endorsed measure *1789: Hospital-wide all-cause readmission measure* to exclude planned readmissions; harmonization of exclusions in the COPD measures compared to the pneumonia measures that include exclusions for discharged alive on day 0 or 1
- Exclusions for all Medicare patients in hospice rather than just FFS Medicare patients enrolled in hospice.

ACTION TAKEN:

- The Committee reviewed the AHA comments and the extensive responses provided by the developer. The Committee indicated that the responses adequately addressed the issues raised by AHA.

- The Committee supports the plan of Yale/CMS to include the algorithm for planned readmissions in measures 0506 and 1891 and looks forward to reviewing the additional information in the next few weeks.

Other comments raised concerns with the validity of the coding for pneumonia and COPD:

- **0231 Inpatient pneumonia mortality**

  0506 Thirty-day all-cause risk standardized readmission rate following pneumonia hospitalizations

  0468 Thirty-day all-cause risk standardized mortality rate following pneumonia hospitalizations

  The claims-based definition of pneumonia (for measures *0231 Inpatient pneumonia mortality* and 0506 and 0468) lacks sufficient validity and requested that the definition be updated to reflect coding trends, noting that this measure does not include patients with a primary diagnosis of sepsis or respiratory failure and a secondary diagnosis of pneumonia. A recent published study demonstrated that hospital admissions with a primary diagnosis of pneumonia are declining over time, while at the same time admissions with a primary diagnosis of sepsis or respiratory failure and a secondary diagnosis of pneumonia are on the rise possibly due to the performance measures: http://jama.jamanetwork.com/article.aspx?volume=307&issue=13&page=1405

- **1891 Thirty-day all-cause risk standardized readmission rate following COPD hospitalizations**

  1893 Thirty-day all-cause risk standardized mortality rate following COPD hospitalizations

  Research demonstrates that different algorithms for identifying COPD admission yield widely differing cohorts and there are no practical solutions at this time. A validation study examining the sensitivity and specificity of this coding strategy compared with the reference standard of a clinical diagnosis of an acute COPD exacerbation is necessary to ensure that these codes reliably and validly identify the intended target population, helping to mitigate the possibility that observed variation in outcome is due to variation in coding practices. Similar validation studies were performed prior to NQF endorsement of related measures for acute myocardial infarction, congestive heart failure and pneumonia, and the commenters believe that the COPD measures should be held to the same high standard.

CMS/Yale and AHRQ have responded to the various issues raised and are aware of the recent JAMA article by Dr. Lindenauer:

- AHRQ notes that for measure 0231 "the coding of principal diagnosis is governed by ICD-9-CM Official Guidelines for Coding and Reporting (CDC, 2011) and is defined as "that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care." Although there are special circumstances in which a patient admitted in acute respiratory failure (ARF) due to an underlying diagnosis of pneumonia may be coded with a principal diagnosis of ARF rather than pneumonia, this change would affect relatively few cases and would reduce harmonization between the AHRQ measure and the CMS measure."
- CMS responded "The recent paper by Dr. Lindenauer is useful and informative. CMS has an annual process to maintain and re-evaluate the measures and this process incorporates any important recent literature. The analyses in Dr. Lindenauer's paper suggest some additional cohort codes that could be incorporated into the measure in the future. Because the pneumonia mortality measure has been successfully used in public reporting for four years now and changes to the cohort will have an impact on hospitals and stakeholders, any potential changes must be undertaken with careful consideration. Dr. Lindenauer's paper was a patient-level analysis and our maintenance evaluation will need to take into account the implications for hospital results as well as the potential benefits and risks of changing the cohort definition."

The developers and Committee discussed the need for updating the coding and harmonization among the process and outcome measures for inpatient pneumonia. The developers identified some differences due to the chart-based data for the process measures differs from the claims-based data for the outcome measures

ACTION TAKEN: The Committee encourages the Committee to harmonize the definitions of pneumonia as soon as possible.

CMS/Yale advised the Committee that, in response by a recommendation from this Committee, the age range for measures 1891 and 1893 to 40 years and above. The developers note that COPD is rare in the less than 40 age group (1.5% of patients in our 2006 California all payer dataset), and a diagnosis at younger ages is likely to represent the misclassification of patients with asthma or other pulmonary conditions. This approach is commonly used in the research literature.

ACTION TAKEN: The Committee agreed with the change in age to 40 and above for measures 1891 and 1893.

VOTING

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

Please note that voting for the first group of Pulmonary and Critical Care measures concludes on July 10 2012, at 6:00 pm ET—no exceptions.