

# ENDORSEMENT SUMMARY: Pulmonary and Critical Care Measures

AUGUST 2012

## Purpose of the Project

Chronic lung disease – asthma, chronic obstructive pulmonary disease (COPD), and pneumonia – affects some 33 million Americans and is the third leading cause of death in the United States.<sup>1</sup> Asthma alone afflicts an estimated 23 million people, including seven million children who miss 14 million days of school a year because of it.<sup>2</sup> COPD cost the nation \$50 billion in 2010, and an estimated 1.2 million hospital discharges were attributable to pneumonia in 2006.<sup>3,4</sup>

Critical care units often bear the burden of treating people with these and other conditions. Each year, more than five million people are admitted to intensive care units (ICUs) suffering from respiratory distress or failure, sepsis, and heart disease or failure. Many patients are also admitted because of postoperative care management issues. With approximately 6,000 ICUs in the United States, providers are treating an estimated 55,000 critically ill patients every day.

NQF has endorsed more than 40 performance measures related to pulmonary conditions and the critical care setting over the past decade. With better data systems now available and electronic health records closer to widespread adoption, the demand for more sophisticated and outcomes-focused performance measures addressing these conditions are growing. In November 2011, NQF – at the request of the Department of Health and Human Services – began a project focused on identifying, endorsing, and updating a broader set of pulmonary and critical care performance measures.

The resulting endorsed measures will help ensure patients suffering from pulmonary conditions or admitted to critical care settings receive safe, high-quality care.

## What Was Endorsed

### Summary of Pulmonary and Critical Care Endorsement Maintenance Measures Project

	Maintenance	New	Total
Measure submitted for consideration	35*	8	43
Measures withdrawn from consideration	8	0	8
Measures recommended for endorsement	15	5	20
Recommended with reserve status	2	0	2
Measures not recommended for endorsement	10	3	13

*\*Includes two measures that are paired.*

Under the pulmonary and critical care endorsement project, NQF endorsed 20 measures suitable for accountability and quality improvement. Of the 20 measures, 15 were previously endorsed and granted continued endorsement status, and five were newly submitted measures.

Measure stewards included a range of healthcare stakeholders, including the Physician Consortium for Performance Improvement, convened by the American Medical Association; the National Committee for Quality Assurance; the Pharmacy Quality Alliance; the Centers for Medicare and Medicaid Services; and the Joint Commission, among others. A full list of measures is available at the end of this report.



## The Need these Measures Fill

This project sought to identify and endorse measures that address pulmonary conditions and the critical care setting for accountability and quality improvement. The resulting measures focus on a wide range of care concerns, including medication management for people with asthma, managing poorly controlled COPD, mortality rates for hospitalized patients with pneumonia, and readmission rates for children discharged from pediatric intensive care units, among others.

## Potential Use

These measures are applicable for use in clinician offices, ambulatory care centers, acute care hospitals, intensive care units, and pediatric intensive care units.

## Project Perspectives

The troubling human and financial costs associated with chronic lung diseases and critical care make it clear that performance measures capable of evaluating and ultimately improving patient care and outcomes are greatly needed. With this set of updated and newly endorsed measures, NQF has taken a significant step in that direction.

However, many gaps in measurement remain. Steering committee members identified several important areas where measures are still needed, including:

- Measures focused on in-hospital, severity adjusted, high mortality conditions such as 30-day mortality rates, readmissions, sepsis and acute respiratory distress syndrome (ARDS);
- Measures for earlier identification of sepsis at the compensated stage before it becomes decompensated septic shock and appropriate resuscitative measures;
- Measures of efficiency and overutilization;
- Measures that focus on palliative care for patients with end-stage pulmonary conditions;
- Better measures of comprehensive asthma education; e.g., instruction related to the appropriate application of handheld inhalers prior to discharge and demonstration of use;

- Measures of unplanned pediatric extubations;
- Measures for effectiveness and outcomes of post-acute care for COPD patients;
- Measures of functional status;
- Measures for quality of spirometries in relation to meeting the American Thoracic Society (ATS) standards for pediatric and adult patients; and
- More outpatient composite measures targeted for consumer use.

## Endorsed Measures

### Asthma

#### **0036: Use of appropriate medications for people with asthma (NCQA)**

*Description:* The measure assesses the percentage of members 5-64 years of age during the measurement year who were identified as having moderate to severe persistent asthma and who were appropriately prescribed medication during the measurement year.

#### **0047: Asthma: Pharmacologic therapy for persistent asthma (AMA-PCPI)**

*Description:* Percentage of patients aged 5 through 50 years with a diagnosis of persistent asthma who were prescribed long-term control medication. Three rates are reported for this measure:

1. Patients prescribed inhaled corticosteroids (ICS) as their long term control medication
2. Patients prescribed other alternative long term control medications (non-ICS)
3. Total patients prescribed long-term control medication

#### **1799: Medication management for people with asthma (MMA) (NCQA)**

*Description:* The percentage of members 5-64 years of age during the measurement year who were identified as having persistent asthma and were dispensed appropriate medications that they remained on during the treatment period. Two rates are reported:

1. The percentage of members who remained on an asthma controller medication for at least 50% of their treatment period.

2. The percentage of members who remained on an asthma controller medication for at least 75% of their treatment period.

**1800: Asthma medication ration (AMR) (NCQA)**

*Description:* The percentage of members 5–64 years of age who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year.

**0548: Suboptimal asthma control (SAC) and absence of controller therapy (ACT) (Pharmacy Quality Alliance, Inc.)**

*Description:* Rate 1: The percentage of patients with persistent asthma who were dispensed more than 3 canisters of a short-acting beta2 agonist inhaler during the same 90-day period. Rate 2: The percentage of patients with persistent asthma during the measurement year who were dispensed more than three canisters of short acting beta2 agonist inhalers over a 90-day period and who did not receive controller therapy during the same 90-day period. The full detailed measure specifications have also been submitted as a separate attachment.

**0143: CAC-1: Relievers for inpatient asthma (Joint Commission) \*reserve status**

*Description:* Use of relievers in pediatric patients, age 2 years through 17 years, admitted for inpatient treatment of asthma. This measure is a part of a set of three nationally implemented measures that address children's asthma care (CAC-2: Systemic Corticosteroids for Inpatient Asthma, and CAC-03: Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver) that are used in The Joint Commission's accreditation process.

**0144: CAC-2 Systemic corticosteroids for inpatient asthma (Joint Commission) \*reserve status**

*Description:* Use of systemic corticosteroids in pediatric asthma patients (age 2 through 17 years) admitted for inpatient treatment of asthma. This measure is a part of a set of three nationally implemented measures that address children's asthma care (CAC-1: Relievers for Inpatient Asthma, CAC-3: Home Management Plan of Care (HMPC) Document Given to Parent/Caregiver) that are used in The Joint Commission's accreditation process.

## COPD

**0091: COPD: spirometry evaluation (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of COPD who had spirometry results documented.

**0102: COPD: inhaled bronchodilator therapy (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of COPD and who have an FEV1/FVC < 70% and have symptoms who were prescribed an inhaled bronchodilator.

**0577: Use of spirometry testing in the assessment and diagnosis of COPD (NCQA)**

*Description:* This measure assesses the percentage of members 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.

**1825: COPD - management of poorly controlled COPD (ActiveHealth Management)**

*Description:* The percentage of patients age 18 years or older with poorly controlled COPD, who are taking a long acting bronchodilator.

**1891: Hospital 30-day, all-cause, risk-standardized readmission rate (RSRR) following chronic obstructive pulmonary disease (COPD) Hospitalization (CMS)**

*Description:* The measure estimates a hospital-level risk-standardized readmission rate (RSRR), defined as unplanned readmissions for any cause within 30 days after the date of discharge of the index admission, for patients 40 and older discharged from the hospital with either a principal diagnosis of COPD or a principal diagnosis of respiratory failure with a secondary diagnosis of acute exacerbation of COPD.

**1893: Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following chronic obstructive pulmonary disease (COPD) hospitalization (CMS/Yale)**

*Description:* The measure estimates a hospital-level risk-standardized mortality rate (RSMR), defined as death from any cause within 30 days after the index admission date, for patients 40 and older discharged from the hospital with either a principal diagnosis of COPD or a principal diagnosis of respiratory failure with a secondary diagnosis of acute exacerbation of COPD.

## Pneumonia

### 0096: Empiric antibiotic for community-acquired bacterial pneumonia (AMA-PCPI)

*Description:* Percentage of patients aged 18 years and older with a diagnosis of community-acquired bacterial pneumonia with an appropriate empiric antibiotic prescribed.

### 0147: Initial antibiotic selection for community-acquired pneumonia (CAP) in immunocompetent patients (CMS)

*Description:* Percentage of pneumonia patients 18 years of age or older selected for initial receipts of antibiotics for community-acquired pneumonia (CAP).

### 0231: Pneumonia Mortality Rate (IQI #20) (AHRQ)

*Description:* Percentage of patients, age 18 years and older, with an in-hospital death among discharges with an ICD-9-CM principal diagnosis code of pneumonia.

### 0468: Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following pneumonia hospitalization (CMS)

*Description:* The measure estimates a hospital-level risk-standardized mortality rate (RSMR) defined as death for any cause within 30 days of the admission date for the index hospitalization for patients discharged from the hospital with a principal diagnosis of pneumonia. The target population is patients 18 and over. CMS annually reports the measure for patients who are 65 years or older and are either enrolled in fee-for-service (FFS) Medicare and hospitalized in non-federal hospitals or are hospitalized in Veterans Health Administration (VA) facilities.

### 0506: Hospital 30-day, all-cause, risk-standardized readmission rate (RSRR) following pneumonia hospitalization (CMS)

*Description:* The measure estimates a hospital-level risk-standardized readmission rate (RSRR) defined as unplanned readmissions for any cause

within 30 days of the discharge date for the index hospitalization for patients discharged from the hospital with a principal diagnosis of pneumonia. The target population is patients 18 and over. CMS annually reports the measure for patients who are 65 years or older and are either enrolled in fee-for-service (FFS) Medicare and hospitalized in non-federal hospitals or are hospitalized in Veterans Health Administration (VA) facilities.

## Critical Care

### 0334: PICU Severity-adjusted length of stay (Virtual PICU Systems, LLC) \*paired with 0335

*Description:* The number of days between PICU admission and PICU discharge.

### 0335: PICU Unplanned readmission rate (Virtual PICU Systems, LLC) \*paired with 0334

*Description:* The total number of patients requiring unscheduled readmission to the ICU within 24 hours of discharge or transfer.

### 0343: PICU Standardized Mortality Ratio (Virtual PICU Systems, LLC)

*Description:* The ratio of actual deaths over predicted deaths for PICU patients.

## Imaging

### 0513: Thorax CT: Use of contrast material (CMS)

*Description:* This measure calculates the percentage of thorax studies that are performed with and without contrast out of all thorax studies performed (those with contrast, those without contrast, and those with both). The measure is calculated based on a one year window of Medicare claims data. The measure has been publicly reported annually by the measure steward, the Centers for Medicare & Medicaid Services since summer 2010 as a component of its Hospital Outpatient Quality Reporting (OQR) Program.

## Endnotes

1. American Lung Association. Available at [www.lungusa.org/assets/documents/publications/lung-disease-data/solddc\\_2010.pdf](http://www.lungusa.org/assets/documents/publications/lung-disease-data/solddc_2010.pdf). Last accessed October 2011.
2. Ibid.
3. American Lung Association.
4. Ibid.



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